Winter CES: Multimedia Competition Grows, p81.

Amazing COMPUTING™ For The Commodore AMIGA®

Your Original AMIGA® Monthly Resource

Volume 9 No. 3 March 1994
US $3.95 Canada $4.95

Accent on Multimedia:

- CanDo vs. HELM
- Aladdin 4D Tutorial
- DCTV Presentations
- Educational Multimedia Displays
- CD32 Reviews Section
- Branching Storyboards
- Embossing with ADPro & ARexx

TOMMY CAN YOU HEAR ME
THE WHO'S
TOMMY
EVER SINCE I WAS A YOUNG BOY I PLAYED THE SILVER BALL
SEE ME FEEL ME TOUCH ME HEAL ME
AMIGA

AC EXCLUSIVE!

And furthermore:

- The Amiga Plays Role in Production of THE WHO'S TOMMY

Reviews:

- Scala MM300
- Invoice-It!
- AMI.VGA
- Aladdin Video Tutorials

03

0 74470 74710 9

LIGHTRAVE

LightWave without the Toaster? The solution is LIGHTRAVE.

HIGH SPEED EMULATION:

LightRave is a custom hardware module that emulates all of the Toaster functions needed by LightWave 3D™!

TOASTER FREEDOM:

LightRave enables any Amiga to run LightWave 3D™ without requiring a Video Toaster to be installed.

NEW ADVANCED FEATURES:

LightRave adds a suite of professional features never before available to LightWave 3D™ users.

FASTER!!

LightRave will render images faster than a Toaster equipped Amiga, as no lengthy display time to the Video Toaster™ is required.

SYSTEM REQUIREMENTS:

- Lightwave 3D 2.0, 3.0 or 3.1 required.
- Compatible with all Commodore Amiga models, both NTSC and PAL.
- Workbench and Kickstart 2.04 or later.
- LightWave 3D™ requires a minimum 512 chip ram and 512K fast ram.
- Extended memory and hardware acceleration are recommended.

FEATURES:

True 24-bit display: Rendering is no longer limited to the Toaster's composite display alone. LightRave now allows LightWave 3D™ to render directly to the most popular 24 bit graphic cards.

Supported cards include the GVP IV24, Retina, Opalvision, DCTV, Firecracker 24, EGS Spectrum, Picasso, Piccolo, as well as Amiga, and Amiga-AGA displays.

Pal Compatible: LightRave makes LightWave 3D™ fully functional for European PAL users.

Fast Animations: Full screen preview animations previously only available on the Toaster-4000™ are now available to all LightWave 3D™ users. Animations are stored in standard Amiga "Anim" animation formats and may be transferred and edited by other Amiga programs.

Networking: Lightrave is fully network compatible. From the low cost Parnet to high end ethernet solutions. Lightrave is the perfect solution for Lightwave 3D™ "Render Farms".

Image Processing: Render directly to GVP's ImageFX,where frames can be image processed even before being saved to disk.

Fully Compatible: Works with the entire Amiga line of computers. Even the Amiga 500 and the new Amiga 1200!

Now Supports The New Lightwave 3.1 Update!

Warm & Fuzzy Logic
2302 Marriot Road • Richmond, VA 23229

LightWave 3D and Video Toaster are Trademarks of New Tek Inc. Image FX is a Trademark of GVP. Contact your dealer today or call 804-285-4304.

Circle 104 on Reader Service card.

STRENGTH IN NUMBERS

GVP is the best Solution On any Amiga®

Great Valley Products has been the technological leader in Amiga peripheral and enhancement products since 1988. We consistently provide you with the best quality add-ons for the Amiga computer... bar none!

EGS 28/24 SPECTRUM™ Go Beyond AGA Graphics with this real-time, 24-bit, true-color graphics enhancement card. Programmable resolutions up to 1600x1280! 800x600 in 24-bit! We include a custom display pass-through cable for single-monitor use. Many applications are ready-to-run and we include the acclaimed **EGS Paint** as a bonus too! Bring workstation graphic power to your Amiga today and see what you've been missing!

CIRCLE 329 ON READER SERVICE CARD

TBCPlus™ This professional quality, all digital time-base-corrector (TBC) uses state-of-the-art 8-bit 4:2:2 video signal processing...*Plus* it provides a real-time video frame-grabber and 16.7 million color frame-buffer ...*Plus* there is a full SMPTE/EBU time-code receiver/generator...*Plus* this incredible product will transcode composite and Y/C inputs...*Plus* a 3 channel video input switcher (in composite and Y/C) ...*Plus* programmable video special effects!

CIRCLE 330 ON READER SERVICE CARD

Performance Series II™ At 50Mhz, you can own the fastest A1200 in the world! Add up to 32MB of high-speed 32-bit RAM, today! With the added power of a 50Mhz FPU, your floating point operations have never been speedier. A simple connection in the A1200's 'trap-door' never voids a warranty, and with the Series II you have the added versatility of our custom option slot. Add the fastest SCSI interface on any A1200 with the **A1291 SCSI Kit**. It just plugs in from the back. Other expansion products coming soon!

CIRCLE 331 ON READER SERVICE CARD

ImageFX™ Totally Integrated Image Processing. This is the only Image Processing package you will ever need. Period. This is the professional solution that brings you not only interchange between various image formats such as TIF and GIF and TARGA, but also a full-featured 24-bit, real-time paint and touch-up program. See the work you are doing *while you do it*! Edge feathering, Alpha channel, CMY/HSV/YUV/YIQ operations, integrated scanning, regionalized processing... It's *in* there!

CIRCLE 332 ON READER SERVICE CARD

G-Lock™ Bring live video, audio and Amiga graphics together and do it on *any* Amiga! Get connected with the world of video with our built-in transcoder to convert input video to composite, Y/C, RGB or YUV outputs! Full support for AGA systems as well as the 'classic' Amiga 500, 2000 and 3000. Acclaimed interface controls make this easy to use and simple to control. **Scala™** users even get an EX module to use **G-Lock** in their multimedia applications. Add G-Lock's included dual-input audio panel and it's simply the best choice for every personal Amiga owner.

CIRCLE 333 ON READER SERVICE CARD

IV-24™ 2.0 — The Ultimate Genlock This is what you have been searching for in a professional quality genlock for your Amiga 2000, 3000 or 4000. This integrated hardware design provides the crispest, cleanest genlocked video on the Amiga desktop. With options for RGB, composite, SVHS, Betacam and M-II compatible inputs & outputs as well as a 24-bit, 16.7 million color frame-buffer and real-time framegrabber/digitizer, this is *the* Amiga genlock every professional needs. Powerful included software completes this picture as the Ultimate Genlock.

CIRCLE 334 ON READER SERVICE CARD

G-Force '030 Combo™

GVP's classic Combo card accelerates your Amiga 2000 to new heights! This integrated design slips into the processor option slot in your system and instantly provides dramatic performance improvements. Easily add up to 16MB of fast 32-bit RAM. Gain expansion and versatility with our powerful SCSI II interface, allowing you to connect up to 7 devices such as hard drives, SyQuest removables or CD-ROM drives. Feel the power of **G-Force** today!

CIRCLE 335 ON READER SERVICE CARD

G-FORCE™

G-Force '040/33 Combo™

The classic Combo taken to the Ultimate Extreme! Your applications will blaze with the awesome power of a 33Mhz 68040 processor. Give that muscle some room to flex with room for up to 64MB of fast 32-bit RAM. Of course our award-winning SCSI II interface is integrated for maximum performance and we include the bonus of ioExtender capability with an extra parallel port and a buffered high-speed serial port. Hot "toast" served here!

CIRCLE 336 ON READER SERVICE CARD

4008 SCSI II™

Bring the world of SCSI within your reach with this easy-to-install board. Instantly gain access to thousands of peripherals such as hard drives, SyQuest removable media and CD-ROMs. Add up to 7 devices to your Amiga 4000 and smile. As a leader in Amiga peripheral technology since 1988, we still maintain support for A2000 owners too, even providing 8MB of RAM expansion on the card. Advanced surface-mount technology allows any user to mount a 3.5" drive directly to the card, providing for maximum convenience. Get the GVP SCSI difference!

CIRCLE 337 ON READER SERVICE CARD

ioExtender™

Feeling trapped? Let GVP extend your horizons with our easy-to-use **ioExtender**. Contained on a single card, you will find an additional parallel port, allowing you to connect a printer and a digitizer (such as DSS8+) at the same time. No more messy, unreliable switch boxes! We include two, that's right, two high-speed, FIFO buffered serial ports. No more dropped data or bogged-down computers when transferring data via modem (at speeds in excess of 57,600!). Free your ports and regain performance on your Amiga with **ioExtender**!

CIRCLE 338 ON READER SERVICE CARD

PHONEPAK™ VFX

PhonePak VFX™ 2.0

If you are calling for VoiceMail Press 1.
If you would like to send a Fax, Press 2.
If you would like to have this automated, scheduled, time/date stamped and call you when you have new mail, get **PhonePak VFX 2.0** today! Fully integrated, allowing unlimited mailboxes and private fax receiving. Send faxes from any program that prints. Call in remotely and retrieve faxes sent earlier. Plain paper or paperless faxing. Call routing with Centrex/PBX support, and more!

CIRCLE 339 ON READER SERVICE CARD

DSS8+™

DSS8+ DIGITAL SOUND STUDIO

Clearly Superior! This is the quietest, most professional and attractive digital sound sampler yet made. Assembled of high-impact clear polycarbonate, this is the sound sampler to own for the Amiga. The versatile **Digital Sound Studio** software includes a multifaceted program for sampling, editing, song composition, stereo sound playback as well as creation of .MOD format songs.

CIRCLE 340 ON READER SERVICE CARD

- A500
- A600
- A1200
- A2000
- A3000
- A4000

GVP

GREAT VALLEY PRODUCTS, INC.
657 CLARK AVENUE KING OF PRUSSIA, PA 19406 • USA
PHONE 215•354•9495 • FAX 215•337•9922

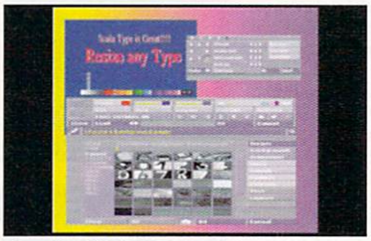
EGS 28/24 Spectrum, Performance Series II, Image FX, G-Lock, IV-24, G-Force '030 Combo, G-Force '040/33 Combo, 4008 SCSI II, ioExtender, PhonePak VFX, and DSS8+ are trademarks of Great Valley Products, Inc. All other trademarks are the property of their respective owners.

Circle 105 on Reader Service card.

Amazing COMPUTING™ For The Commodore AMIGA

Volume 9
Number 3
March 1994

CONTENTS

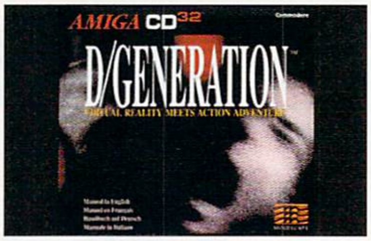


Scala MM300, p. 14

In Nuclear Medicine, radiation is inside the patient.
Menu

Amiga Stars, p. 44

CD^{32} Review, p. 83



CD^{32} Review, p. 83

Greetings from the staff at the
VINTAGE CHOICE

Digital Image Special F/X, p. 72

In This Issue

29 CanDo

by Randy Finch

Finch continues this month with Buttons, Sorting, Printing, and AmigaGuide Help as he catalogues his *Star Trek* video collection.

39 Accent on Multimedia

by R. Shamms Mortier

Mortier focuses on branching storyboards.

44 Amiga Stars at Medical Convention

by Michael Tobin, M.D.

An example of patient education using the Amiga interactively with *HELM* in nuclear medicine.

47 Punctuating Your Presentations with DCTV

by John Steiner

Discover how one teacher used DCTV to lecture on the Renaissance.

52 CanDo vs. HELM

by Randy Finch

A head-to-head comparison of two superior authoring systems. Find out which comes out the winner.

56 Aladdin 4D

by R. Shamms Mortier

In this session, Mortier discusses some fairly simple ways of altering animations through the use of an A4D Camera/Target system.

81 CES

While entertainment and sports stars dominated the consumer electronic industry's main event, CBM adopted a modest race in their push of CD^{32}.

83 CD^{32} Review

Reviews of some of the hottest new CD^{32} releases coming straight out of Europe.

Reviews

14 Scala MM300

by R. Shamms Mortier

Mortier believes *MM300* to be "hot stuff" for anyone doing interactive media work.

16 Invoice-It!

by Rick Manasa

Designed to simplify the billing procedures many self-employed and small business owners face.

20 Aladdin 4D Tutorial Video Tape Set

by Merrill Callaway

Callaway contends that people who have never used Aladdin 4D before will find the videos difficult going.

Features

41 Online

by Rob Hays

A close look at Starship, the Amiga section of GEnie.

63 PD Update

by Henning Vahlenkamp

This month: a description of *AlertPatch* 2.9, which often can prevent crashes; *MuchMore,* a smooth-scrolling ASCII text utility; and other shareware/freeware titles.

72 Digital Image Special F/X

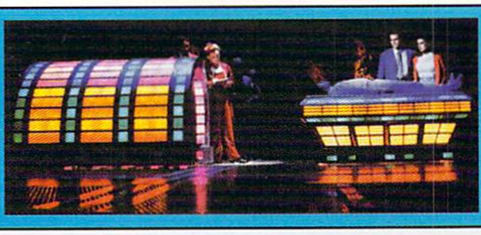
by William Frawley

Using ARexx, *ADPro,* and *PageStream to process images.*

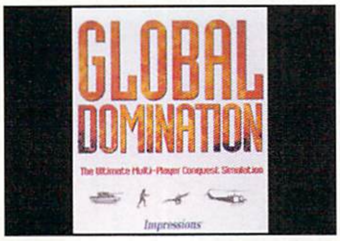
And Furthermore...

by Jeff Gamble

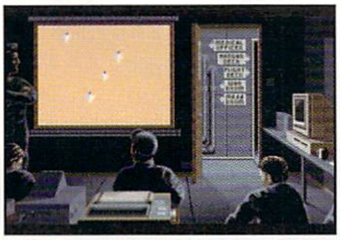
The Amiga Takes the stage in the Broadway production of The Who's *Tommy*. p.96



New Products, p. 13

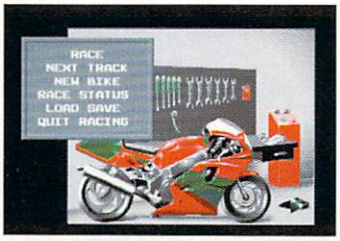


New Products, p. 10



Combat Air Patrol, p. 86

Prime Mover, p. 88



Prime Mover, p. 88

Columns

8 New Products & Other Neat Stuff

by Elizabeth Harris

This month's New Products includes the *CEI 4000M, ClariSSA Professional V3.0, Edge, SAS/C Version 6.50, TaxBreak 1993*, and *CanDo 2.51*.

25 cli directory

by Keith Cameron

Cameron concludes his short series on basics of the shell by exploring command line editing.

27 Bug Bytes

by John Steiner

Problems booting with A2630 and DKB 2632 32-bit RAM board; a solution to the *DPaint IV* and A4000 conflict; and more.

59 ARexx

by Merrill Callaway

In this issue, Callaway uses *FinalWriter* to print envelopes.

67 Roomers

by The Bandito

Is there a deal in progress between Hewlett-Packard and Commodore? Will Blockbuster Video's rental of CD-ROMs and drives affect CD^{32} sales?

86 Diversions

This month, two games from Psygnosis—*Combat Air Patrol* and *Prime Mover*.

Departments

Editorial **6**

List of Advertisers **80**

Feedback **90**

And Furthermore **96**

Commodore introduced the new CD^{32} MPEG at the Winter '94 Consumer Electronics Show to a standing-room-only audience.

Amazing COMPUTING For The Commodore AMIGA

Amazing Computing For The Commodore AMIGA™

ADMINISTRATION

Publisher:	Joyce Hicks
Assistant Publisher:	Robert J. Hicks
Administrative Asst.:	Donna Viveiros
Circulation Manager:	Doris Gamble
Asst. Circulation:	Traci Desmarais
Traffic Manager:	Robert Gamble
Marketing Manager:	Wayne Arruda
Production Manager:	Ernest P. Viveiros

EDITORIAL

Managing Editor:	Don Hicks
Associate Editor:	Jeffrey Gamble
Hardware Editor:	Ernest P. Viveiros Sr.
Senior Copy Editor:	Paul L. Larrivée
Copy Editor:	Elizabeth Harris
Video Consultant:	Oran Sands
Art Consultant:	Perry Kivolowitz
Illustrator:	Brian Fox
Contributing Editor:	Merrill Callaway

ADVERTISING

Advertising Coordinator:	Traci Desmarais

1-508-678-4200, 1-800-345-3360, FAX 1-508-675-6002

Amazing Computing For The Commodore Amiga™ (ISSN 1053-4547) is published monthly by PiM Publications, Inc., Currant Road, P.O. Box2140, Fall River, MA 02722-2140, Phone 1-508-678-4200, 1-800-345-3360, and FAX 1-508 675-6002.

U.S. subscription rate is $29.95 for one year; $46.00, two years. Subscriptions outside the U.S. are as follows: Canada & Mexico $38.95 (U.S. funds) one year only; Foreign Surface $49.97. All payments must be in U.S. funds on a U.S. bank. Due to erratic postal changes, all foreign rates are one-year only.

Second-Class Postage paid at Fall River, MA 02722 and additional mailing offices.

POSTMASTER: Send address changes to PiM Publications Inc., P.O. Box 2140, Fall River, MA 02722-2140. Printed in the U.S.A. Entire contents copyright© 1993 by PiM Publications, Inc. All rights reserved. No part of this publication may be reproduced without written permission from PiM Publications, Inc..

Additional First Class or Air Mail rates available upon request. PiM Publications, Inc. maintains the right to refuse any advertising.

PiM Publications Inc. is not obligated to return unsolicited materials. All requested returns must be received with a self-addressed stamped mailer.

Send article submissions in both manuscript and disk format with your name, address, telephone, and Social Security Number on each to the Associate Editor. Requests for Author's Guides should be directed to the address listed above.

AMIGA™ is a registered trademark of Commodore-Amiga, Inc.,
Commodore Business Machines, International

Distributored in the U.S. & Canada by
International Periodical Distributors
674 Via de la Valle, Ste 204, Solona Beach, CA 92075
&
Ingram Periodicals Inc.
1226 Heil Quaker Blvd., La Verne TN 37086

Printed in U.S.A.

PeeCee's Digital Imagery

THE Amiga Imaging Specialists

TRY Our High-Quality Iron-Ons

35mm Slide & Negative Imaging
Color Prints / Transparencies and MORE!

35mm Slides from $3.50
72 Hour Turnaround / 4K Res. / Any Quantity
48 Hour/24 Hour/RUSH available

PeeCee's

ANY Amiga format (incl. JPEG & New AGA modes)

Call TODAY and ask about our FREE TRIAL OFFER!

PeeCee's Digital Imagery 945 Walnut Street Fall River, MA 02720-5326
FAX 508.676.9308 BBS 508.676.9308 (9600/8N1)

508.676.0844

Circle 125 on Reader Service card.

The Toaster System Integrator.

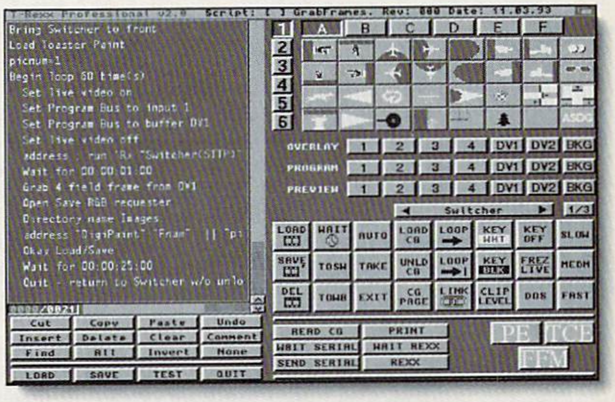
T-Rexx Professional is a highly integrated ARexx script generation environment with powerful tools specifically designed for the NewTek Video Toaster. T-Rexx can also automate the functions of 11 other important products, and, because it is completely user configurable, you can add support for the products of your choice.

Benefits

- **Create sophisticated scripts without any knowledge of ARexx.** You simply point and click. T-Rexx even displays your scripts in plain English!
- All T-Rexx tools are connected together creating a **fully integrated system**. You need learn only one user interface to master every aspect of T-Rexx Professional.
- You can quickly and easily manage large quantities of Toaster Framestore images. **Convert Framestores to and from RGB** (in full color and fidelity) *without requiring a Toaster.*
- **You can create your own ActionFX and OrganicFX** to produce custom results for your demanding clients. Using T-Rexx's special effects processing, dozens of new FX can be created from a single source.
- You can **create and modify Toaster projects** creating exactly the configuration which best meets your needs.
- Develop scripts in a fraction of the time it used to take using T-Rexx's unique **Real Time Mode**. You can test your scripts as you write them, alerting you to any mistakes instantly.
- **Using one consistent, easy-to-learn user interface, you can control** any program that is ARexx compatible or any device that can accept commands via a serial or parallel port. *Your entire studio, not just your Toaster, can be controlled by T-Rexx* giving you more time for producing results instead of hunting for solutions.

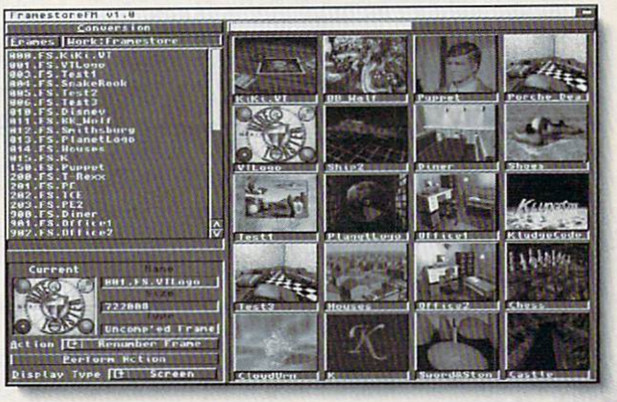
Includes support for the following products: AmiLink, Art Department Professional, BCD-2000A, DQ-Taco, MediaPhile, MorphPlus, PC-VCR, Personal SFC II, Personal TBC III, Pixel 3D, SunRize Studio 16 and VISCA.

- T-Rexx allows you to **create interactive or automated multimedia presentations** by linking the Video Toaster to other hardware and software products. T-Rexx's ability to be synchronized to events from the GPI, serial port, parallel port, keyboard, ARexx or timer means you've got the widest array of options available for your creative use. T-Rexx can even **automate the recording of your finished presentation** (including audio) onto video tape or single frame recorders.
- T-Rexx **provides powerful batch processing tools which save you time and disk space.** Process images as they're produced automatically, without having to store intermediate results.



```
Bring Switcher to front
Load Toaster Paint
picnum=1
Begin loop 60 time(s)
  Set live video on
  Set Program Bus to input 1
  Set Program Bus to buffer DV1
  Set live video off
  address . run 'Rx "Switcher(STTP)"'
  Wait for 00:00:01:00
  Grab 4 field frame from DV1
  Open Save RGB requester
  Directory name Images
  address "DigiPaint" "Fnam" || "pi
  Okay Load/Save
  Wait for 00:00:25:00
  Quit - return to Switcher w/o unlo
```

- Your script is shown in plain English on T-Rexx Professional's main screen.



```
000.FS.KiKi.VI
001.FS.VILogo
003.FS.Test1
004.FS.SnakeRook
005.FS.Test2
006.FS.Test3
010.FS.Disney
011.FS.BB_Wolf
012.FS.Smithsburg
013.FS.PlanetLogo
014.FS.Houses
015.FS.K
150.FS.Puppet
200.FS.T-Rexx
201.FS.PE
202.FS.ICE
203.FS.PE2
900.FS.Diner
901.FS.Office1
902.FS.Office2
```

```
001.FS.VILogo
222000
Uncompleted Frame
```

- Framestores can be converted to/from RGB, previewed and organized using FramestoreFM.

T-REXX *Professional*

T-Rexx helps you get the most of your system investment because an integrated system is greater than the sum of its parts. **T-Rexx Professional is the Toaster System Integrator!**

ASDG

925 Stewart Street Madison, WI 53713
608/273-6585

T-Rexx Professional is backed by ASDG, a solid company providing innovative products and quality customer support since 1986.

The following names are trademarks or registered trademarks of the indicated companies: T-Rexx Professional, MorphPlus, FramestoreFM, LightTV, ShareFX, and Art Department Professional: ASDG Incorporated, ARexx: Wishful Thinking Development Corp., Deluxe Paint: Electronic Arts, Brilliance: Digital Creations, Inc., Amiga: Commodore-Amiga, Inc., Video Toaster, Toaster, ToasterPaint, and LightWave 3D: NewTek Incorporated, Other trademarks are the property of their respective holders. The Video Toaster Logo is copyrighted by NewTek Incorporated and is used with permission. Copyright © 1993 by ASDG Incorporated

Circle 102 on Reader Service card.

EDITORIAL CONTENT

Endangered Fish, Multimedia Oversight, and an Odd Job

Just after the holidays, I received a phone call from Fred Fish concerning possible pirating of his collection in Germany. As we have noted previously in *AC*, Fred is now offering his complete library on CD-ROM as well as floppies. While the entries in the collection are not copyrighted, the collection is, and any distribution of his CD-ROM material other than directly through Fred is illegal.

Fred had received a notice that his new CD-ROM disk was being sold at a price far below his selling price. Apparently someone had copied his disk on a new master and were publishing CDs without his approval. "I will not be able to continue the collection if they pirate my CDs." stated Fred.

Fred started the Fred Fish collection during the Fall of 1985 with the first distribution of the Amiga. He created the first real communication among developers and users by providing a single source for utilities, programs, graphics, and more. Fred has stated in the past that he created the collection for himself and offered copies to his friends in his users group. The demand became so great that Fred had to establish a system for accepting, duplicating, and distributing these disks to the Amiga community. As Fred's collection grew more massive, the effort required to keep up with the collection also grew.

> "I will not be able to continue the collection if they pirate my CDs."
>
> Fred Fish

In an attempt to make the collection more accessible, Fred decided to create the premier collection on CD. Approximately every two months, Fred releases a new CD as well as twenty accompanying floppy disks. The Floppies carry the latest releases on the disk for any users who do not have access to a CD-ROM drive. He will continue to offer the floppy versions of his disk until he reaches disk number one thousand. After the Fred Fish Disk 1000, Fred will only release additional software in a CD-ROM format.

When Fred announced his plans, I called him and asked if *AC* could continue releasing Fred Fish disks from Fred Fish Disk 1001 based on his release of the CD-ROM. Fred agreed and, starting with FF1001, *AC* will be the only official source for the creation of these disks. In order to maintain the integrity of the library, *AC* will copyright the disk collection, but not its contents.

I felt the continuation of the collection in a floppy format was essential to allow all Amiga users access to this valuable resource. *AC* has been a long supporter of Fred's activities. We have carried a catalog of his collection in our pages since the third issue. In addition, *AC's GUIDE* maintains an accurate composite directory with indexes of the entire collection in each issue.

Fred's reimbursement for his time and effort in creating this library comes from his revenue on disks and the royalties paid to him by organizations such as *AC*. Without these funds, there would be no reason for Fred to continue his work other than for his own needs. The Amiga would certainly suffer from the disappearance of his collection.

In short, If you are buying a CD-ROM of Fred Fish software, be certain it is Fred's. If you discover someone offering the collection on CD and it is not from him, notify Fred immediately. Fred may be reached by writing:

Fred Fish
Amiga Library Services
610 N. Alma School Road, Suite 18
Chandler, Arizona 85224-3687

Attention Multimedia Developers

Please do not forget the Interactive Media Festival™'s Festival Award show to be held at the Universal Amphitheater in Los Angeles on June 7, 1994. The Festival Gallery will be open to the public during Seybold's Digital World Conference, June 6-8, at the Los Angeles Convention center.

The Festival and awards event is being supported by Jonathan Seybold, who has been instrumental in developing the desktop publishing industry. I can only assume that his efforts in the field of multimedia will earn equal success. This is why it is important that the Amiga and its abilities are represented.

Seventy-five individuals comprise the delegation of nominators who will award and attempt to discover the new frontiers of multimedia. However, of the seventy-five, none are from the Amiga community. There are representatives from 3D0, Philips Interactive Media (CD-i), Electronic Arts, Macromedia, Microsoft Corporation (2 people), Spectrum HoloByte, NASA, Newsweek Interactive, as well as a host of others. Individuals have also been selected from colleges and universities from as far away as Milan and Tokyo.

While some of these individuals may have knowledge of the Amiga and its contribution, none are directly involved in the Amiga market and its large contribution to multimedia. Unless our best people step forward immediately and submit their work, it is possible that this ground-breaking opportunity to understand the direction and promise of multimedia may completely dismiss one of multimedia's greatest contributing platforms.

It has often been said that the Amiga created multimedia before there was a name for it. Unfortunately if we do not react soon, that legacy could be completely forgotten. With judging to begin in mid-January, your immediate attention to this problem is essential.

If the judging has started by the time you read this, why bother? It is important that we do not allow this opportunity to slide by. This is especially true since the Amiga appears to have been forgotten. There may be an opportunity to get projects judged. I believe the sponsors of this activity want to run an unbiased contest. If we offer them our best submissions, they should do everything in their power to see that the Amiga is included.

For information concerning the Festival and the awards, please contact:

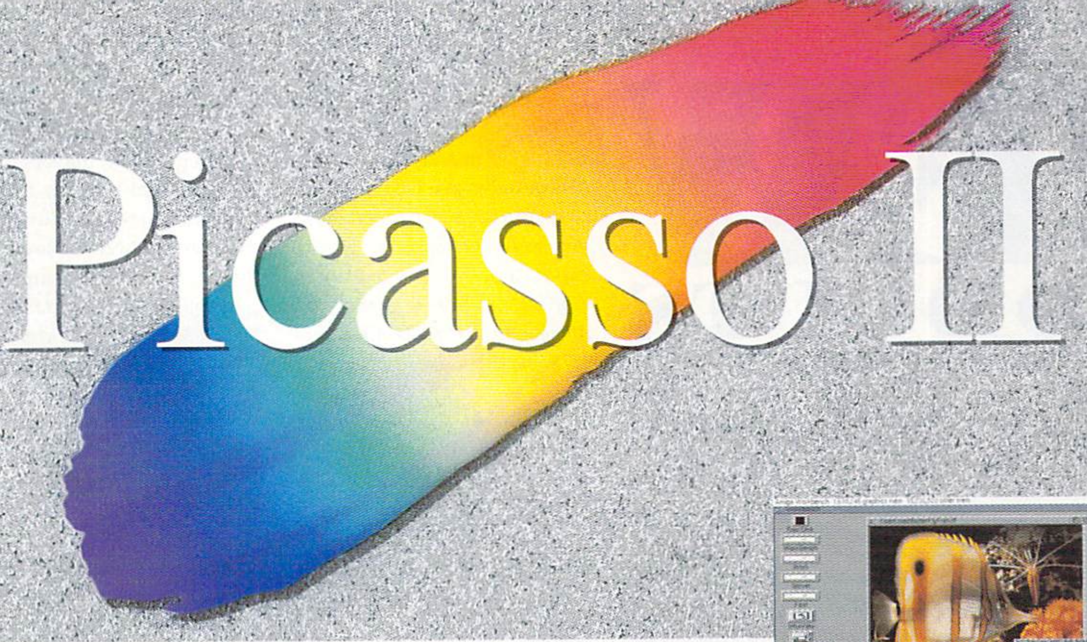
Interactive Media Festival
448 Bryant St.
San Francisco, CA 94107
(408) 982 0400 or (800)-573-1212
FAX (408)-982-0403

Whoops!

In the February issue of *Amazing Computing*, we incorrectly listed Dan Weiss as an executive for Gold Disk. Dan is actually vice-president of research and development at Soft-Logik. Our apologies to Dan and to Soft-Logik for any misunderstandings this may have caused. We would also like to apologize to Gold Disk for giving them a new employee and now taking him away.

Sincerely,

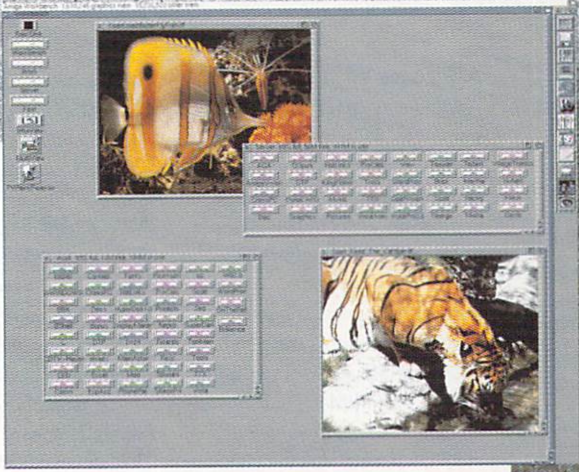
Don Hicks
Managing Editor



Picasso II

Retargetable Graphics* have arrived!

24 bit graphics for your Amiga®



1280 x 1024 256 color Workbench screen displayed on an A3000 with the Picasso II.

Picasso II RTG (Retargetable Graphics) means *Incredible New Graphics Power for your Amiga.*

Providing greater resolutions and more speed than AGA systems and the ability to run system friendly AGA software, the Picasso II is a next generation graphics display system. Your Amiga will be able to run all the latest software at resolutions up to 1280 x 1024 with 256 colors on screen. The Picasso II also supports custom screen modes with up to 16.7 million colors at resolutions as high as 800x600.

Picasso II RTG means *No Waiting for Specially Programmed Versions of Your Favorite Software.*

The Picasso II RTG emulator is completely integrated into the system. Imagine being able to run the latest software packages like ProPage 4.1, PageStream 2.2, Cygnus Ed 3.5, Deluxe Music Construction Set 2.0, AmigaVision Professional and many others at resolutions up to 1280x1024 and up to 256 colors. All system friendly Amiga software packages will be able to take advantage of the new screen modes offered by the Picasso II.

Picasso II RTG means *Hi-Performance.*

The Picasso II has an on-board Blitter which supports drawing speeds up to 30 megabytes per second. The Picasso II Blitter has been fully integrated into the RTG emulator. Any program running under the RTG emulator will automatically take advantage of the Blitter. Off screen displays are moved into Picasso II display memory using the Blitter for super fast screen updates.

Picasso II RTG means *No More 'Chip Ram Blues'*

The Picasso II RTG emulator has been designed so that it uses no chip ram for its emulation. Only the currently visible display is kept in the Picasso II display memory, all other screens are stored in standard system memory. This means that all system memory can be used as graphics memory. A system equipped with 16 megabytes of ram would be like having a 16 megabyte graphics board!

Picasso II RTG means *Maximum Compatibility.*

The Picasso II RTG emulator supports Workbench 2.04, 2.1, 3.0, and beyond. The Picasso II is compatible with any Zorro II or Zorro III equipped Amiga system, such as the A2000, A3000, or A4000.

Picasso II AutoSwitch means *One Monitor.*

The Picasso II comes with a built in electronic switch that automatically routes the proper signal to your monitor. When the AutoSwitch detects non-Picasso II screens, such as those used by games and older software, it automatically routes the signal directly to your monitor. When the AutoSwitch senses a Picasso II screen mode, it will automatically switch back.

The Picasso II comes packaged with TVPaint Jr. (24 Bit Paint Program), and drivers for ArtDept Professional, ImageFx, ImageMaster, and Real 3D 2.0.

***Re•tar•get•ab•le Gra•phics** *adj.*: The ability to run software on any third party graphics board. *See also*: Picasso II.

Expert Services

7559 Mall Road
Florence, KY 40142 U.S.A.
TEL: 606-371-9690
FAX: 606-282-5942

Village Tronic

Braunstrasse 14
D-30169 Hanover-Germany
Tel:+ 49/(0)511/13841
FAX:+ 49/(0)511/1612606

The following names are trademarks of the indicated companies: Picasso II RTG; Expert Services, Professional Page; Gold Disk Inc., Pagestream; Soft-Logik Publishing, Deluxe Music Construction Set; Electronic Arts; Amiga, AmigaVision Professional & Workbench; Commodore Amiga, Inc., Art Department Professional & Cygnus Ed; ASDG Inc., ImageFx; Great Valley Products, Inc., Imagemaster; Black Belts Systems, Real 3D;RealSoft International, TVPaint Jr.; Techsoft Images.

Circle 116 on Reader Service card.

NEW PRODUCTS

and other neat stuff

Adorage V2.0 AGA

Adorage ($199) is a 2-D animation package, offering a range of video-effects from simple fade-in and fade-out to page flips and explosions. Selection and implementation of these effects is icon-driven and very easy. Adorage partially supports the SSA standard which allows the playback of animations up to 60fps, and is AGA compatible. Features include 3-D effect groups (spirals, cubes, comet), user definable parameters for most effects, icon driven user interface, and more. *Spectronics International USA, Inc., 34 East Main St. #23, Champaign, IL 61820, (217) 352-0061. Inquiry #200*

AmigaLink

AmigaLink is a real LAN network based on the Peer-To-Peer principle. The complete network hardware is offered in a small adapter for the floppy drive port. The networking software allows connections between up to 20 Amigas, with full exchange of data and sharing of devices. Each printer hooked up to the network is accessible by all machines. Installation is straightforward. All that is required is to plug the network adapter into the external floppy drive port, hook up the cables and install the software.

AmigaLink is compatible with all Amigas, A500 through A4000 and CDTV, and a special adapter for CD32 is in preparation. The data transfer rate is 450,000bps, the maximum length for the cabling is 300 feet. AmigaLink uses RG58 coaxial cable and BNC connectors. *Spectronics International USA, Inc., 34 East Main St. #23, Champaign, IL 61820, (217) 352-0061. Inquiry #201*

Amiga HP Explorer

This program, written by the author of Directory Opus, is similar to the MS-DOS program of the same name. The program gives the user complete control of the default settings of their Hewlett Packard 4L laser printer. The Amiga Explorer ($39) installs as a Workbench commodity and requires Workbench 2.x or 3.x to operate. *GSOFT Pty. Ltd., PO Box 59, Elizabeth SA 5114, Australia, (011) 61-8-254-2261. Inquiry #202*

Arcade Pool

Arcade Pool is an arcade-style pool simulator for one or more players. Features excellent animation and smooth movement of the balls; official rules for 8 Ball, 9 Ball, Speed Pool, etc.; a point scoring one-player challenge; and plenty of options to change the rules to the players own specifications. It also features authentic digitised pool sounds and crowd applause effects. The game comes on a single disk and does not require any disk swaps. *Team17, Marwood House, Garden Street, Wakefield, West Yorkshire WF1 1DX, (011) 44-924-291867. Inquiry #203*

ARexx Reference Disk

The ARexx Reference Disk is Merrill Callaway's complete reference manual for the ARexx language. All ARexx built-in instructions and functions are listed and described, along with all rexxsupport.library functions and all command utilities. The ARexx Reference Disk presents all instructions and functions in easy-to-understand and greatly expanded descriptions. *Whitestone, 511-A Girard SE, Albuqueque, NM 87106, (505) 268-0678. Inquiry #204*

CEI 4000M

Creative Equipment International announces the CEI 4000M. The CEI 4000M is the first multimedia multiplatform personal workstation. The CEI 4000M is fully compatible with both the Apple Macintosh software and Amiga software.

This powerful multimedia personal workstation is built around an Amiga 4000. With the addition of the Emplant Emulation board and Macintosh ROMs, the workstation becomes compatible with Macintosh software. *Creative Equipment International, (305) 266-2800. Inquiry #205*

CEI A4066 Ethernet

This is a direct replacement for the now discontinued Commodore 2065 ethernet card. The A4066 Ethernet card is a SANA-II-compatible high-speed ethernet card. Features include: 10MB transfer rate; 10BaseT, Thick AUI and Cheapernet; high-performance wait state host interface with 64K packet memory; diagnostic LED's for Link and Collision status; autoconfig ROM socket for network book application. *Creative Equipment International, (305) 266-2800. Inquiry #206*

ClariSSA V2.0 AGA

A powerful way to play back and edit 2-D and 3-D animations is offered by ClariSSA V2.0. ClariSSA ($199) automatically optimizes ANIMs so that they can be played back at speeds which were previously available only on workstations. Due to the proprietary SSA animation format, which uses fields rather than frames, most problems normally encountered when playing back 2-D or 3-D animations are eliminated. Features include 30% higher playback rate as opposed to other ANIM players, integrated virtual memory feature, cut-and-paste function, standalone ANIM player included, fully AGA compatible. *Spectronics International USA, Inc., 34 East Main St. #23, Champaign, IL 61820, (217) 352-0061. Inquiry #207*

ClariSSA Professional V3.0

Based on the powerful features offered by ClariSSA V2.0 ($399), this package offers even more possibilities for the creation of impressive animations. The Multi-ANIM-Play function offers the possibility of multiple animations on-screen at the same time, totally independent of color palette, resolution, and screen size. Special effects such as wipes, can now be performed on or with animations without a problem. ClariSSA V3.0 also implements Highend-SSA, offering a speed increase for ANIM playback of 80% over the standard SSA format, and SSAd (super smooth animation from disk) offering the possibility to play back animations straight from hard disk.

Another plus offered by ClariSSA Pro is that 95% of all editing functions available are now usable through ARexx, offering compatibility with such products as ADPro. All Amiga IFF file formats, including HAM8 and DCTV, are supported. *Spectronics International USA, Inc., 34 East Main St. #23, Champaign, IL 61820, (217) 352-0061. Inquiry #208*

CocoonMorph

CocoonMorph is a new morphing program that can be used for dual-image morphs, single-image morphs, or sequential morphs. Morphs are easy to set up and complete with fast, accurate rendering. Features include built-in virtual memory to conserve RAM; full control over the transition rate of each pixel using alpha channel images; automatic variable-level, transparent color compositing; interface displays source and destination images in color; automatic image scaling;

Got a Great Idea for a Program?
Make it Real with **CanDo!**

CanDo *Lets you convert your ideas into reality.*

CanDo is a software authoring system that gives you the power of a programming language, yet makes creating your program's interface as easy as using a paint program. Because CanDo is tailor-made for the Amiga, all of the exciting Graphics, Sounds, and mouse-driven Objects that are built into your computer are at your fingertips. This gives you everything you need to make your ideas come to life.

CanDo *Makes real programs real easy.*

Painlessly creating your interface is just the beginning. The key to making real programs is CanDo's English-like scripting language. Even if you're a beginner, you can still use CanDo's tools to write programs for you. While easy to learn and use, the commands are so powerful you can create programs which would take 10 times longer to write using a language such as C – even presuming you had years of programming experience.

CanDo *Is programming for the rest of us...*

Ordinary people all over the world are using CanDo to create real applications such as: databases, utilities, animated multimedia presentations, kiosks, training systems, and all sorts of games. CanDo enables you to explore your imagination and make the things you never thought you had the time or experience to do.

You **CanDo** *It!*

INOVATRONICS
interactive media

1-800-875-8499

Inovatronics, Inc. / 8499 Greenville Avenue / Suite 209B / Dallas, TX 75231 / USA / Tel: (214) 340-4991 / FAX: (214) 340-8514
Inovatronics, Ltd. / Unit 11, Enterprise Centre / Cranborne Road / Potters Bar / Hertfordshire / EN6 3DQ / ENGLAND / Tel: +44-707-662861 / FAX: +44-707-660992
Inovatronics GmbH / Im Heidkamp 11 / W-5000 Cologne 91 / GERMANY / Telephone +49-221-875126 / FAX +49-221-8704747

Circle 114 on Reader Service card.

NEW PRODUCTS

and other neat stuff

and more. *DevWare, 12520 Kirkham Court, Suite 1, Poway, CA 92064, (800) 879-0759. Inquiry #209*

DeluxeMusic

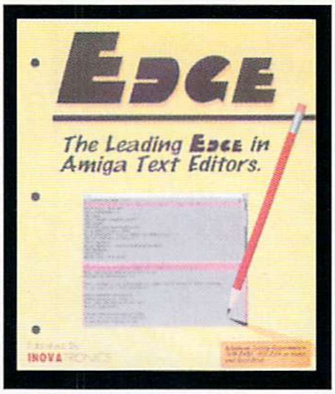
Electronic Arts announced the release of DeluxeMusic, the update to the DeluxeMusic Construction Set. DeluxeMusic now offers many new dictation features including multiple document support, hide and reveal project options for the easy management of open projects, macro support to automate repetitive tasks, and full ARexx support. DeluxeMusic also provides new playback options such as a standalone Player module and the ability to attach any instrument sample or MIDI Channel to an instrument name. With over 20 instruments included with multiple play style for each instrument, dynamic range from ppp to fff, playback speed from 10 to 300 beats per minute and full four-voice sound, the DeluxeMusic composer has a wide range of options to choose from. *Electronic Arts, 1450 Fashion Island Blvd., San Mateo, CA 94404, (800) 245-4525. Inquiry #210*

Dream Weaver

Dream Weaver is a computer adventure builder designed to let you quickly and easily create your own text and graphic adventure games. Dream Weaver uses drop-down menus, buttons, and text boxes, making it easy to create adventure games without programming. Your custom-designed game can then be distributed to friends using the accompanying Dream Weaver Player program. Features include up to 120 rooms on 10 levels, point-and-click map builder, keyed room exits, unlimited fixes, movable or wandering objects, digitized sound effects, built-in paint program, and more. *AmyGames, P.O. Box 458, Zionsville, IN 46077. Inquiry #211*

Edge

Edge ($99.95) is a powerful, easily configurable text editor for writing and editing ASCII text files. Edge can open on the Workbench screen, "fold" large sections of text out of view, help you prevent syntax errors while writing ARexx and C code, and automatically block-indent paragraphs. Edge lets you completely redefine its menus, keyboard layout, messages, errors, prompts, etc. When loaded, Edge creates its own "virtual RAM disk," which lets you find, open, access, and save more work faster than otherwise possible. *INOVAtronics, 8499 Greenville Ave. #209B, Dallas, TX 75231, (214) 340-4991. Inquiry #212*



FramePro

MEDIA Innovations' new utility program provides direct software control of ASDG's ADPro allowing the user to batch process an entire range of frames from one format to another with a few mouse clicks. Simply select your image drawer from the requester or drag-n-drop the drawer over to the utilities window. In conjunction with ADPro, FramePro will crop, size, brighten, color correct, and further process the frames while simultaneously writing them to RAM, storage devices, or even DPS's Animation Board. *MEDIA Innovations, 644 1/2 Richmond St., London, ON., Can., N6A 3G6, (519) 434-3210. Inquiry #213*

GameSmith Development System

The GameSmith Development System (available March or April '94) is a game/multimedia development aid consisting of several utilities and a highly optimized linker library. It is a professional development system which works with the C or assembler development environment of the user's choice. It offers true arcade-quality sound and graphics performance, while providing flexibility and ease of use. Functions include low-level blitter routines, custom copper lists, joystick polling, vector routines, random number generator, vertical blank timer, fast plot routines for replacing ReadPixel and WritePixel, Amiga ROM librarian, file requester, and more. *Bithead Technologies, 8085 North Raleigh Place, Westminister, CO 80030-4316, (303) 427-9521. Inquiry #214*

Global Domination

Play at a simple or advanced level against your friends or against one of history's notable conquerors. Choose from Hitler, Napoleon, Attila the Hun, and more—each with their own personality and playing style that affects their strategy.

Build up huge armies with your choice of unit types, and decide where to site your attack force. Then invade! You can either have combat resolved for you by the computer, like a board game, or zoom down to a satellite view of the battlefield, and lead your forces to victory in person. *Impressions Software, Inc. 222 Third St., Suite 234, Cambridge, MA 02142, (617) 225-0500. Inquiry #215*

ISAM 1.03

ISAM 1.03 is a shareware product giving even novice Amiga programmers the ability to easily store and retrieve database records. ISAM is composed of two files: the data file, where the records are stored in the order in which they were received; and the index file, where key information from the record is stored in order. Each ISAM file may contain up to 4G fixed-length records, each of which may be from 4 bytes to 4GB in size. The shareware version of ISAM is available on BIX, GEnie, and CompuServe as "ISAM103.LZH" or "ISAM13.LZH". After 90 days, users are required to register. For $25, users receive the registered version, any necessary bug fixes, and info on upgrades. ISAM 1.03 is also available from the address below. *RedShift Software, P.O. Box 10403, Rochester, NY 14610-0403. Inquiry #216*

Mand2000

Mand2000 is ($34.95) a fractal exploration program which draws pictures of the Mandelbrot set and other fractals on your Amiga and allows you to explore these fractals by zooming and panning towards interesting areas. Mand2000 has an intuitive user interface which includes such features as a point-and-click animated zoom, multiple windows, online help, and even joystick control for driving through the Mandelbrot and Julia sets. *Cygnus Software, 33 University Square, #199, Madison, WI 53715. Inquiry #217*

PhotoworX

PhotoworX ($199) gives you the possibility to access Kodak™ Photo-CDs from your Amiga equipped with an XA-compatible CD-ROM drive. Access to photos is made incredibly easy with PhotoworX. Each photo is represented as a small slide on a so-called "contact sheet." Loading the actual photo is as easy as double-clicking on the appropriate slide. Features include support for all Amiga resolutions, AGA screens, and a great number of graphics boards; includes several image processing routines; allows saving in any Amiga IFF-compatible file formats from 16 colors to 24-bit; prints to all

High Resolution Output

from your AMIGA™ DTP & Graphic Documents

You've created the perfect piece, now you're looking for a good service bureau for output. You want quality, but it must be economical. Finally, and most important...you have to find a service bureau that recognizes your AMIGA file formats. Your search is over. Give us a call!

We'll imageset your AMIGA graphic files to RC Laser Paper or Film at 2400 dpi (up to 154 lpi) at a extremely competitive cost. Also available at competitive cost are quality Dupont ChromaCheck™ color proofs of your color separations/films. We provide a variety of pre-press services for the desktop publisher.

Who are we? We are a division of PiM Publications, the publisher of *Amazing Computing for the Commodore AMIGA*. We have a staff that *really* knows the AMIGA as well as the rigid mechanical requirements of printers/publishers. We're a perfect choice for AMIGA DTP imagesetting/pre-press services.

We support nearly every AMIGA graphic & DTP format as well as most Macintosh™ graphic/DTP formats.

For specific format information, please call.

For more information call 1-800-345-3360

Just ask for the service bureau representative.

NEW PRODUCTS

and other neat stuff

Amiga-compatible printers, even color printers where supported. *Spectronics International USA, Inc., 34 East Main St. #23, Champaign, IL 61820, (217) 352-0061. Inquiry #218*

PRO-MIX

Phantom Development announced the upcoming release of PRO-MIX, the premier software controlled audio mixing board for the Amiga. The new product provides five stereo input pairs with volume, balance, mute and stereo controls. Master output controls include: attenuation, bass and treble, equalization, loudness, mute, stereo/mono mode, and tone defeat. Integrated audio sampler hardware allows any single channel or group of channels to be sampled concurrently. Additional features include a variable speed multi-channel cross fader, 8SVX sample playback, user-definable preset mixer configurations, and on-screen oscilloscopes. An ARexx interface is provided. *Phantom Development, P.O. Box 572, Plantsville, CT 06479, (203) 276-8175. Inquiry #219*

Quarterback Version 6.0

Quarterback 6.0 adds many new advanced features, including faster software-based compression and the ability to schedule unattended backups The new Schedule Pro program allows the user to automatically run any AmigaDOS program or ARexx macro program. It can also automatically display reminders on the screen at preset times. Both program execution and reminder displays can be scheduled for single occurrences, or repeated occurrences with virtually unlimited flexibility. In addition, there is support for advanced tape-handling features for tape drives which support them and several new ARexx macro commands have been added. *Central Coast Software, PO Box 164287, Austin, TX 78716, (512) 328-6650. Inquiry #220*

Rules of Engagement 2

In Rules of Engagement 2, you are the Fleet Commander of the Federated Worlds Armed Forces main task force. The war with the United Democratic Planets has escalated, and hosted alien spacecraft have been discovered in the Local Group. In charge of a fleet of starships, you must engage enemy vessels and hostile outposts in order to protect the Federated Worlds. You begin at the rank of Lieutenant Commander, but decoration and promotion are possible upon meeting the FWAF's objectives. *Impressions Software, Inc. 222 Third St., Suite 234, Cambridge, MA 02142, (617) 225-0500. Inquiry #221*

SAS/C Version 6.50

SAS Institute Inc. announces the release of Version 6.50 of the SAS/C Development System ($395) with C++, a comprehensive development system for the Amiga. Version 6.50 provides highly-responsive options and capabilities for compiling, debugging, linking, and editing. New features and enhancements include: a C++ compiler, libraries, and debugger; new 68040/68882 Instruction Scheduler; new profiler; new font support in all utilities; improved CodeProbe debugger and optimizers; expanded online hypertext help; better support for shared libraries and devices. *SAS Institute Inc., SAS Campus Dr., Cary, NC 27513, (919) 677-8000. Inquiry #222*

Sequel

Sequel ($139), new music sequencing software is now shipping from Diemer Development. Using any MIDI instrument, it allows players to record and produce 32-track tunes, score accompaniment for live gigs, and author music for video, games, and presentations. A software engine was designed from the ground up for the Amiga's preemptive, multitasking operating system. *Diemer Development, 12814 Landale St., Studio City, CA 91604-1351, (818) 762-0804. Inquiry #223*

Stardust

Stardust ($49.95) is the ultimate version of the coin-op classic Asteroids, brought up to date with stunning raytraced graphics. The game includes 33 action-packed levels with intelligent enemies, mind-blowing sound effects, and six-channel stereo sound. There are two bonus sections, four tunnel missions, and two spectacular parallax scrolling missions. Stardust is Amiga 1.3/2.0/3.0 compatible and requires a PAL boot disk and the 1MB Agnus chip. *Bloodhouse USA, 303 Holiday Drive, Tuscola, IL 61953. Inquiry #224*

TaxBreak 1993

TaxBreak 1993 from Oxxi will include a manual update as well as the latest forms and tax schedules. Sticking with the what-you-see-is-what-you-get approach, all data entry is done directly into the tax forms themselves. Any line can be itemized via small data entry lists and the result then is immediately shown on the particular line for the form. All forms are linked and any supporting schedule or form can be opened by simply double-clicking on the appropriate line item. All of the most frequently used forms and schedules are included with TaxBreak, including 1040 and 1040A. Tax refunds and any taxes due are automatically calculated with each updated entry to the tax return. Online IRS instructions are available on a per-line basis via the Help key. *Oxxi, Inc., P.O. Box 90309, Long Beach, CA 90809, (310) 427-1227. Inquiry #225*

When Two Worlds War

Explore and conquer hostile planets in this science-fiction galaxy. In When Two Worlds War, you take control of your planet's state-of-the-art military workstation. This gives you the power to research new technologies, design and manufacture new units, and command these craft to carry out your strategy. *Impressions Software, Inc. 222 Third St., Suite 234, Cambridge, MA 02142, (617) 225-0500. Inquiry #226*

•Other Neat Stuff•

Aladdin 4D Version 3.0

Adspec Programming is announcing the latest upgrade to its Aladdin 4D product: Version 3.0. Aladdin 4D Version 3.0 ($499) maintains all of the capabilities of its predecessors while introducing the following new features: lens flares, control splines, 3D splines, and more. Paths have been updated to allow for scaling and rotation of objects over time as well as instancing. Aladdin 4D will render directly to Firecracker 24, OpalVision, Retina, DCTV, Resolver, and any Amiga mode. Requires a math coprocessor. Call for upgrade prices. *Adspec Programming, 467 Arch St., P.O. Box 13, Salem, Ohio 44460, (216) 337-1329. Inquiry #227*

Amiga Smart Port Analog Upgrades

IDD is distributing Amiga Smart Port Analog Upgrades which dramatically enhance the playability and realism of games such as FA/18 Interceptor, Knights of the Sky, Gunship 2000, and more. These upgrades will dynamically correct or improve the games' control while in memory and will not alter the original game disk in any form. As new upgrades are completed, they will be placed on the IDD Bulletin Board System at (318) 365-2667 or you may call IDD to get the latest upgrade set available. The latest upgrade set will contain all of the upgrades on earlier releases.

NEW PRODUCTS

and other neat stuff

Upgrade diskettes can be purchased directly form IDD by sending a check or money order for $6 to cover the cost of the diskette and shipping—the $6 price is good for the continental U.S. only. A chart showing the known analog games and the status of all Smart Port Upgrades, can be found on the sample diskette included. *InterACTIVE Digital Devices, Inc., IDD R&D Center 16000 Hopkins St., New Iberia, LA 70560, (404) 516-0248. Inquiry #228*

Azure Computer News

Azure & and Photographic Services, Inc. announces the release of six new products: Full-color structured clip art - Volume 1 Frames and Borders and Volume 2 Holidays; Full-color IFF images - Volume 1 Our National Parks and Volume 2 Animals and Flowers; 8-bit IFF 8SVX sound files - Sound Bytes Volume 1: Mechanical Things and Sound Bytes Volume 2: Sounds of Nature.

Azure Computer & Photographic Services, Inc., 10002 Kirkglen Dr., Houston, TX 77078-2316, (713) 481-4704. Inquiry #229

CanDo 2.51

CanDo 2.51 includes these important enhancements: a streamlined, re-organized main interface panel; AGA support; stereo music file support, with full control over tempo and volume; support for StarTracker, SoundTracker, NoiseTracker, ProTracker,MED, and others; new window editor; user-definable script editor shortcuts; layout editor tool for controlling text flow around complicated shapes; and more. *INOVAtronics, 8499 Greenville Ave. #209B, Dallas, TX 75231, (214) 340-4991. Inquiry #230*

DRC Sequential Turns One

DRC Sequential Graphics has been serving the professional Amiga community with its affordable and high-quality images for one year this January. To commemorate this occasion, they will award a free six-month subscription to every fifteenth customer who purchases a sampler disk from January 1, 1994 to March 31, 1994. The selected customers will have their choice of either Digital Collage, the HAM/IFF version, or Digital Collage, the JPEG 24-bit version, according to which version of the sampler disks they purchased. *DRC Sequential Graphics, 57 East 400 North #9, Provo, UT 84606-2987, (801) 373-9579. Inquiry #231*

DeluxePaint IV Keyboard Template

This template, which retails for $9.95, contains all the DeluxePaint IV keyboard shortcuts and commands. For use with Deluxe Paint IV versions 4.1 and 4.5 AGA. *A&P Software Solutions, 3010 W. Winton Ave., Hayward, CA 94545-1126. Inquiry #232*

Fire-Safe Media Chest #1710

The Sentry Group announced the recent introduction of its Fire-Safe Media Chest #1710, designed to protect delicate computer software against damage from fire, heat, and humidity. The box holds up to thirty 5-1/4 disks and up to sixty 3-1/2 disks. Cassette tapes and data cartridges can also be stored. Dimensions of the Media Chest are 8-1/4 high x 14-1/4 wide x 11-1/2 deep. *Value-tique Inc., P.O. Box 67, Dept. FSMC, Leonia, NJ 07605, (800) 444-2135. Inquiry #233*

GVP News

GVP announced that it is shipping an adapter kit available for use with their EGS-28/24 SPECTRUM graphics board and NEC's FG series of monitors. The adapter kit now available from GVP for $24.95 alters the output of the EGS-28/24 SPECTRUM board to make it compatible with the NEC FG series of monitors without affecting the graphic quality provided by EGS SPECTRUM. *Great Valley Products, 657 Clark Ave., King of Prussia, PA 19406, (215)354-9495. Inquiry #234*

LaserCraft Unlimited Assumes SignEngine

LaserCraft Unlimited has assumed the management of sales and support of SignEngine as of December 1, 1993. SignEngine is alive and well, and development of new features and products is being continued. *LaserCraft Unlimited, 38 Rexway Drive, Georgetown, Ontario, Canada L7G 1P8. Inquiry #235*

NakeD-Up Retina Interface

Pre'Spect Technics introduced the NakeD-Up Retina Interface for the Amiga 500. With this interface, A500 users can now work with the Retina Interface and 24-bit graphics. The NakeD-Up is available for other A2000 cards for use on the A500 and A1000 as long as the Amiga 2000 card does not require the A2000's special CPU or video slots. *Pre'Spect Technics, Inc., P.O.Box B 53, Rte. de Lotbiniere, Dorion, Quebec, Canada J7V 2K0, (514) 944-9696. Inquiry #236*

Scala Address Change

Scala Inc. has relocated from Reston, VA to Herndon, VA. Phone and fax numbers have been updated. *Scala Inc., 2323 Horse Pen Rd., Suite 202, Herndon, VA 22071, (703) 713-0900, fax (703) 713-1960. Inquiry #237*

Team17 Relocates

Team17, makers of Arcade Pool and Assassin, have relocated their offices. Formerly located at Prospect House, Borough Rd., Wakefield, W. Yorkshire, they can now be found at Marwood House, Garden St., Wakefield, W. Yorkshire. *Team17, Marwood House, Garden Street, Wakefield, West Yorkshire WF1 1DX, (011) 44-924-291867, fax (011) 44-924-201849. Inquiry #238*

TouchLink

Geodesic Design proudly introduces TouchLink, an Amiga touch-screen system. TouchLink is sold with the touch panel ($300) or without it ($150). TouchLink plugs into gameport 2 and is compatible with all Amigas including the CD32 directly. TouchLink works with most Amiga software by simulating a mouse click at the point touched. The included panel comes in two models, gas and acrylic. The flat glass backed panel has a 10.95" x 8.2" active area that can be used in kiosk systems with external housings. The flexible acrylic-backed panel has a 9.5" x 7" active area that can be applied directly to 14" CRTs for standalone touch screen monitors. *Geodesic Designs, Inc., P.O. Box 956068, Duluth, GA30136-9502. Inquiry #239*

Video Design Expands Product Line

Video Design Associates has expanded its product line for 1994. Package prices for the SmoothTalker system range for $299.95 for the ST-1 kit, which includes how-to videos geared to the serious build-it-yourself prompting enthusiast, to the ST-4, a complete turnkey system that includes an in-front-of-the-lens prompting device, 13" color TV, and reconditioned Amiga Model 500 computer, priced at $999.95. All packages offered by Video Design include SmoothTalker software. For more information, contact Shawn McDermott at Video Design. *Video Design Associates, P.O. Drawer 1089, Lake Worth, FL 33460-6624, Info: (407) 586-7266, Orders: (800) 749-7266. Inquiry #240*

New Products and Other Neat Stuff is compiled by Elizabeth Harris.

REVIEWS

Scala MM300

by R. Shamms Mortier

WHEN WE AMIGA USERS use the term multimedia, what do we mean? To many of us, the term is simply interchangeable with the word Amiga itself, because the Amiga platform was designed from the ground up to accomplish multimedia applications, that is, the marriage of audio and video. But multimedia is also an industry buzz-word, having little to do with a specific platform. Actually, the term is a child of the older word hypermedia, which was coined by Apple in the '70s. Hypermedia is defined as a way of interacting with computers so that what you do on the screen can trigger events and even other hardware into action. The computer, then, becomes a central control mechanism that can access a number of data paths in a sequential fashion. Multimedia software creates hypermedia environments. *Scala* is an Amiga multimedia package that allows the Amiga user to create hypermedia and other levels of presentations that can be used for interactive kiosk environments, interactive use in teaching/learning situations, and as sequential animated edits for video applications. *Scala MM300* is the latest version of this software, so let's see what it does and how it does it, as well as to see how well it lives up to its promises.

What you need

Scala demands as much fast RAM as you can afford, and the amount of fast RAM determines how many pages it can animate and display in any one book. It also takes advantage of your Chip RAM in a big way, so 2MB is a must. My tests of Scala MM300 were done on an Amiga 4000 with 18MB of RAM. The actual software was on an A3000T, and accessed with the help of ENLAN-DFS software and the ASDG Rover-Net cards. Like it or not, Scala MM300 is dongle-protected from the second joyport.

The mark of the best Amiga multimedia software is proportional to what you can intuitively accomplish after cracking the manual one time. If you have to look up everything before you do it, it's almost positive that you are going to become frustrated when it's time to put together a show to tape and/or a presentation for an impossible deadline. With one reading of the Scala manual, you should be able to set it aside to gather dust while you go about your work. The interface is well designed and the icons clear as to purpose. Most effects are accomplished by simple mouse-clicks including choosing effects, data and graphics retrieval, and saving the finished work.

A tour of the Scala MM300 workplace

Opening Scala brings up a screen that allows you to choose whether you want the first page to be a background or an animation, and whether you want to load music, sound effects, symbols, palettes, text (ASCII), or previously-saved layouts. Choosing none of these but selecting OK instead will bring up a sepa-

rate screen that allows you to set up a screen resolution, including overscan and the number of colors desired. This includes super hi-res screens with full overscan if you choose. Since I was running Scala on an A4000, I stayed with a hi-res, 256-color overscan screen for my work. The Symbols, by the way, reference a Scala library that is meant for interactive kiosk design, like the multimedia displays you can find at all major airports where electronic maps guide you around the terminal and beyond. Multi-directional arrows, symbolic pictographs (exit signs and other universal symbols), and a set of symbols dedicated to the Scala name are contained in the library. You could design your own symbols, save them as brushes, and add them to this library.

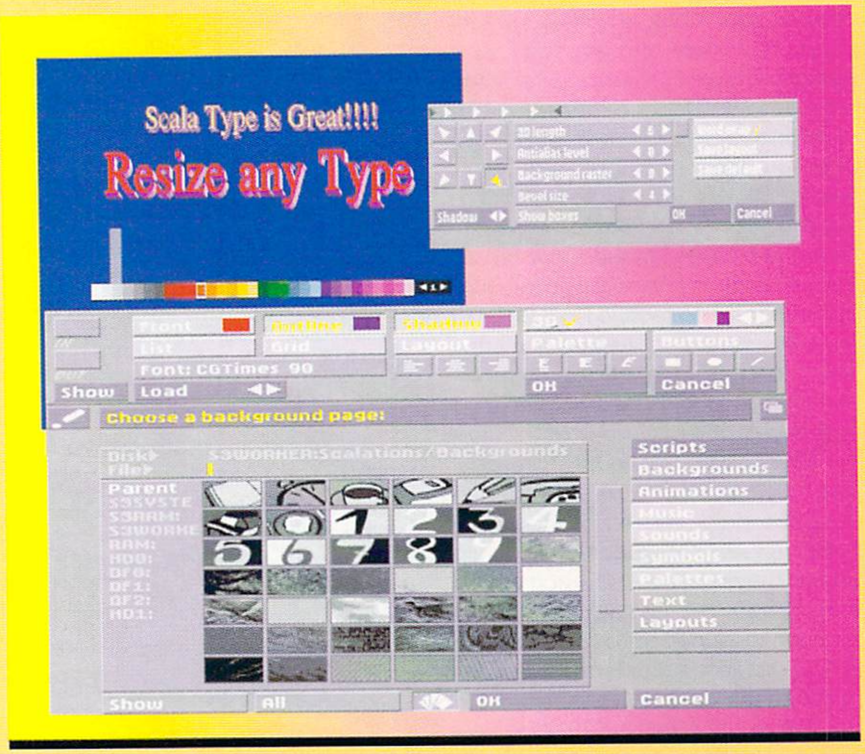
If you load either a background or just a blank screen, you will enter the main menu area next. This is the place where 90% of your interactive animated display will be designed, so it requires the most thorough explanation. At the top of this menu are the various color toggles for either text or brushes: Front (main color of text), Outline (text and brush), Shadow (text and brush), and 3-D (a color extruded shadow for text and brush). The size or thickness of all of these options is fully configurable for each separate text or graphic brush. When you work in 256 colors, this adds up to all of the options you could ever desire. The 3-D option allows you to add shaded extrudes of your color choice to objects either by allowing the software to select the shading options or by entering two colors on your own. There is a grid you can toggle to place text and graphics more precisely.

A List screen keeps tabs of all text and brush additions. You can reorder the list interactively, which determines the order that items are written to the screen. Three separate columns show the wipe in/out and a numeric pause for each element selected. The Layout menu allows interactive resizing of shadow, 3-D, and other parameters. The Palette button brings up a feature-laden palette area that allows not only the loading and saving of palettes, but their manipulation, aliasing spreads, optimization, and color cycling control.

The font button loads the Font drawer from your Font drawer path, but does not allow alternate Font paths to be accessed at this time. This should be revised as soon as possible, especially for those of us that use some form of networking. Text justification and styling (bold, underline, and italics) are supported at the click of the mouse. Rectangle, oval, and line primitives are also accessible.

Buttons

The heart of a multimedia program is how it promotes and allows interactive user control. This includes primarily the way that areas of the screen are assigned as active, so that when they are chosen by mouse, light pen, or another activating device (touch screen, etc.) the program responds by taking the user to another data pathway. Buttons initiate actions that take you to other points in the script, to another screen with its own graphics, animations, and sounds. Creating the buttons themselves is as simple as dragging a box around any selected screen area and telling the button what sequence of actions it should address when toggled on. The button area is movable and resizable as well. The next steps involve setting variable boundaries and targets for the pages involved, which is accomplished by accessing the System screen (which shows all pages created) and the separate pages themselves. Luckily, since the process takes a little practice to get used to, a tutorial is included in the manual.



Animations

With Scala MM300's ability to load and play animations as part of a scripted presentation, its use in the classroom and the interactive kiosk is assured. The animation module is known for its ability to play animations at speeds higher than any other Amiga player, and that includes the dedicated players in programs like *DPaint*. The animations can be set to loop as many times as you desire before a script is activated. This opens up Scala as an editing sequencer for your animations.

Sounds

There is a small library of sound files on the Scala MM300 disk, and these examples give you some idea of the ways that sound can be incorporated into an interactive presentation. Though I would suggest that you reconfigure and finalize your sounds in a standard Amiga sound editor (*ASound*, *SoundMaster*, etc.), there is a small number of controllers in Scala that allow some degree of editing. You can bring up the graphical sound wave and cut sections out. You can adjust the fades, volume, balance, period, and loops. Any 8SVX sound file can be loaded and worked on. If I might suggest another feature to be considered later, it would be the capacity to reverse a sound or selected sections. I suppose you could also use Scala in conjunction with your insert-capable VHR to create an original soundtrack.

Conclusions

This is hot stuff for anyone doing interactive media work in the classroom, for kiosk applications, and for titles/credits in videographic applications. It also should be mentioned that Scala MM300 interfaces with Phillips, Sony, and Pioneer Laserdisk players, CDTV players, and onboard genlocks. You can also use Blue Ribbon's *Bars&Pipes* to synchronize Scala scripts to music with the Scala Link module. A separate ANIMLab utility allows you to reconfigure ANIMs you previously stored to disk: ANIMs to frames; retarget colors, resolution, and overscan sizes; remap dithering; optimize palette. To test out this feature I loaded a 16-color hi-res ANIM and saved it to RAM as a 256-color overscan, and it worked as predicted. A special Shuffler icon in Scala MM300 toggles graphics lists from text representations to pictures, an especially helpful feature when addressing backgrounds and brushes. One feature I would like to see added in some future revision is the ability to rotate and mirror brushes imported to a page. This would even be a nice animation feature.

Scala MM300 has a fully functional ARexx port, so that ARexx users can expand the program's capabilities even further. A special language called Scala Lingua interprets the ARexx commands and incorporates them into the script. I had an occasion to edit a Lingua script in ED. Operation was simple and the results as expected.

I would think that A4000 owners especially will want to investigate this software. Using a genlock will be necessary in order to get the full 256-color display to your video recorder. As for interactive designers, Scala MM300 is another advancement in a package that already has a quality reputation in the interactive marketplace.

Scala MM300
Scala, Inc.
2323 Horse Pen Rd., Ste. 202
Herndon, VA 22071
(703) 713-0900
Inquiry #241

Invoice-It!

by Rick Manasa

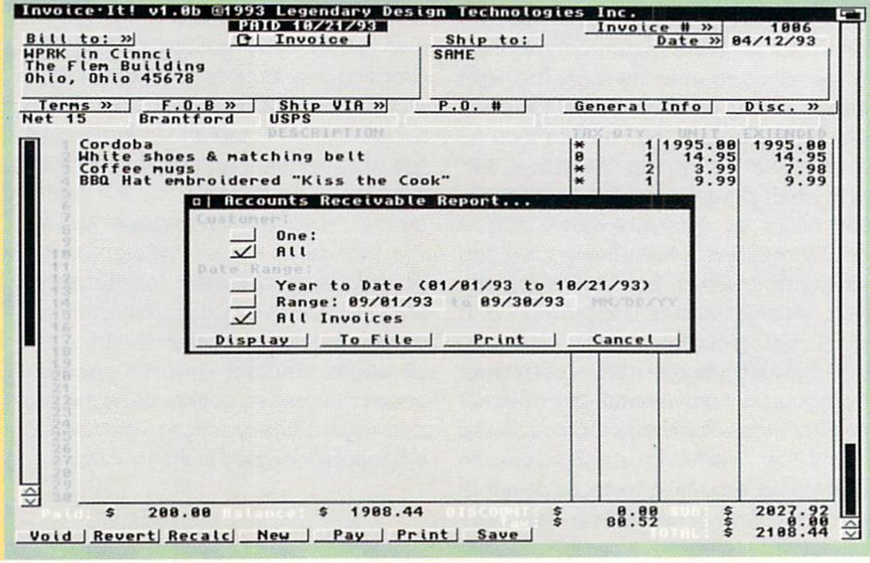
Invoice-It! is another small business product from the minds at Legendary Design Technologies. This easy-to-use package is designed to simplify the billing procedures many self-employed and small business owners face. Invoice-It! will interface with *Address-It!*, another product from Legendary that will create mailing labels and manage customer lists. You can also save information in straight ASCII format for exporting to spreadsheets, databases, and word processors.

Invoice-It! is hard drive installable with the included script and is not copy protected. You can elect to install all included files or just the ones you think you'll need—although you will have to install the req.library. You'll probably want to install the Rebuild Index (for recovery of damaged data) and Customer Converter if you use Address-It!.

The program has the cool 2.0 look and supports the ASL file requester. It will open on a custom screen borrowing the Workbench size, or either interlace or non-interlace mode, regardless of how the Workbench is set up. Invoice-It! will let you search for values in addition to text. If you preface a figure with a $ (e.g., $123.45) Invoice-It! will search for a dollar figure. If you use the # symbol instead, it will look for a non-monetary numeric value (e.g., 10%).

Once you've installed Invoice-It! you must configure the program to match your local tax laws and accounting system. This is not a big deal and is clearly described in the manual. Invoice-It! is a Canadian product, and the multiple tax rates with and without compounding that are found north of the border are supported. You can tell Invoice-It! to save each invoice automatically and to use RAM indexing. Both features will save time but have their drawbacks. When Autosave Invoices is selected, Invoice-It! will save any invoice you've made changes to without asking you. If you've made some changes you don't want to keep, but have moved on to a new invoice, report, or whatever, you'll have to hit Revert to restore your data. RAM indexing will be most useful for those with a floppy-based system. Invoice-It! creates a data file and an index file for each database. If you copy the index file to RAM, your floppy will have to hunt only for the data file. This will decrease access time, but will consume a bit of memory. You'll also have to remember to copy the index file back to disk before quitting the program. Of course if the power goes, there goes your index file, so be careful.

Invoice-It! creates reports based on your invoice data. You'll need to tell it when your fiscal year starts in the Configure requester. You can also select a rounding-up value and an invoice number offset, if you're not starting with invoice # 000. All of these entries can be made to apply globally to all files opened in Invoice-It! if you create and save the con-



Invoice # » 1006
Date » 04/12/93

Bill to: »
WPRK in Cinnci
The Flem Building
Ohio, Ohio 45678

Ship to:
SAME

Terms » Net 15
F.O.B » Brantford
Ship VIA » USPS
P.O. #
General Info
Disc. »

	DESCRIPTION	TAX	QTY	UNIT	EXTENDED
1	Cordoba	*	1	1995.00	1995.00
2	White shoes & matching belt	0	1	14.95	14.95
3	Coffee mugs	*	2	3.99	7.98
4	BBQ Hat embroidered "Kiss the Cook"	*	1	9.99	9.99

Accounts Receivable Report...

Customer:
☐ One:
☑ All

Date Range:
☐ Year to Date (01/01/93 to 10/21/93)
☐ Range: 09/01/93 to 09/30/93 MM/DD/YY
☑ All Invoices

Display | To File | Print | Cancel

Paid: $ 200.00
Balance: $ 1908.44
DISCOUNT: $ 0.00
Tax: $ 80.52
SUB: $ 2027.92
$ 0.00
TOTAL: $ 2108.44

figure file before you open any invoice files. Otherwise, your settings will only apply to the current file. This can be useful if you have more than one company with different fiscal years, tax rates, etc. In this case, each company would have its own set of defaults.

Invoice Design

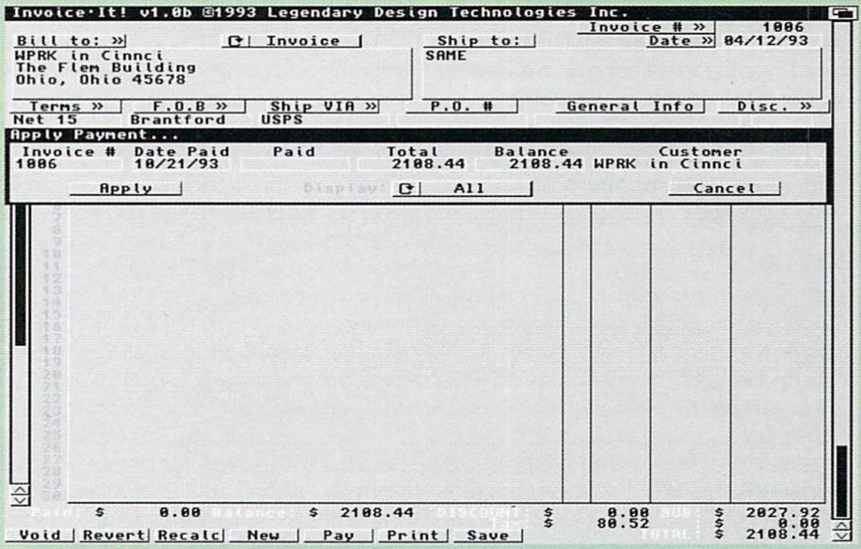
Designing an invoice is easy and intuitive. Click in the appropriate field and enter the data. One of the nicer touches to Invoice-It! is the ability to save lists of frequently-used data. Your can enter all the addressing information for your regular clients once in the "Bill To:>>" gadget. Invoice-It! will pour the appropriate name and address into the form when you double click on it in the requester. Terms, F.O.B., Date, Ship VIA, and Discount can all have their own lists for quick entry of common items into an invoice. Other fields on a standard invoice include a shipping address, space for a purchase order number, and a general info strip for special instructions.

The main screen has plenty of space for filling in invoice particulars. There are 50 lines available for individual items, more than enough for most invoices. There are a set of buttons on the main screen that access requesters and control certain functions and features of Invoice-It! Clicking on the "Invoice >>" gadget brings up a requester that lets you enter an invoice number to go to. The "Date >>" gadget lets you view or change the system date. "Invoice/Quotation" is a cycle button that lets you determine if the current record is treated as an invoice or as a quotation. The differences between quotes and invoices are simple but significant. A quote will not be figured in to any report that Invoice-It! may generate and you can't apply a payment to a quote. Quotes have their own layout format as well. The "Void" button toggles between an active and a voided record. If you have edited a previously-created invoice beyond recognition, Revert will bring it back to its original state. Invoice-It! recalculates all values when you end your data entry by hitting Return. Sometimes, however, you may change some numbers and then click on another gadget before you hit Return. Those values will not have been updated. "Recalc" allows you to manually recalculate all values of an invoice before saving it. "New" brings up a new invoice and "Pay" brings up the payment requester. Most of these buttons are duplicated in the menus and have hotkey equivalents attached to them.

Invoice-It! has a cut-and-paste feature, similar to what you would use to edit material in your word processor. Double click on the line number to the left of the description and a requester pops up asking you if you'd like to cut, copy, or paste the line to a temporary buffer, or cancel the action completely. This could be helpful if you have a lot of line items that are very similar, or if you want to reorganize the line item layout. You are cautioned not to put information on the very last line of your invoice, as Invoice-It!'s paste feature will push that line into oblivion.

Menu Tour

The Project menu in Invoice-It! deals with files, not invoices. You can create a new file and open, close, and compress files. Closing files is required before opening or creating a new file. Invoice-It! needs to do some housecleaning at the end of a session and will almost certainly pop a gasket if you try and open more than one file at one time. I don't understand why Invoice-It! would let you put yourself in such a situation. I'd like to see the program refuse to open or start a new file without closing a current one, or, better yet, close the current file for you when you want to open another one. Compressing files will pay dividends after you've made numerous changes to your file. Marking records as voided or deleted doesn't remove them from the database; it marks them as unavailable or invisible when you want Invoice-It! to perform many of its functions. "Compress" will actually remove voided and deleted



Invoice # 1006
Date 04/12/93

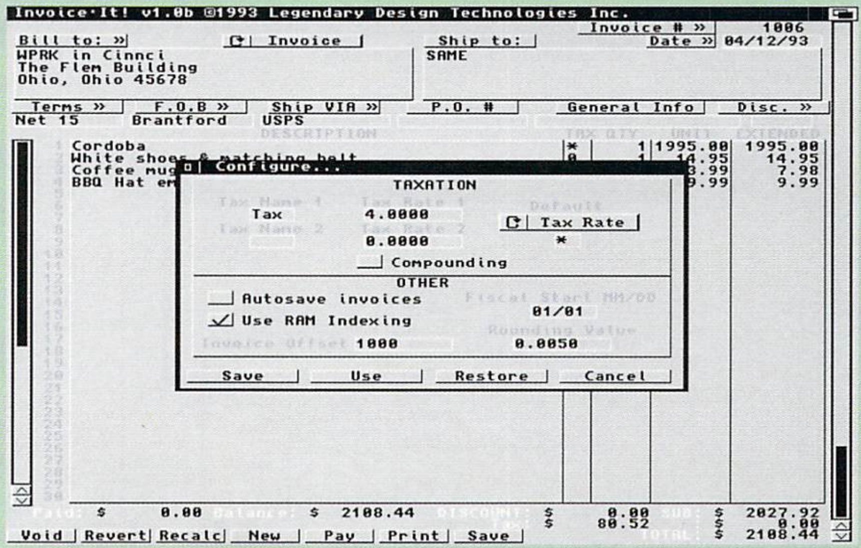
Bill to:
WPRK in Cinnci
The Flem Building
Ohio, Ohio 45678

Ship to: SAME

Terms: Net 15
F.O.B: Brantford
Ship VIA: USPS

Invoice #	Date Paid	Paid	Total	Balance	Customer
1006	10/21/93		2108.44	2108.44	WPRK in Cinnci

Paid: $ 0.00 Balance: $ 2108.44 DISCOUNT: $ 0.00 SUB: $ 2027.92
TAX: $ 80.52 $ 0.00
TOTAL: $ 2108.44



Invoice # 1006
Date 04/12/93

Bill to:
WPRK in Cinnci
The Flem Building
Ohio, Ohio 45678

Ship to: SAME

Terms: Net 15
F.O.B: Brantford
Ship VIA: USPS

	DESCRIPTION	TAX	QTY	UNIT	EXTENDED
1	Cordoba	*	1	1995.00	1995.00
2	White shoes & matching belt	0	1	14.95	14.95
3	Coffee mug			3.99	7.98
4	BBQ Hat em			9.99	9.99

TAXATION
Tax Name 1: Tax — Tax Rate 1: 4.0000
Tax Name 2: — Tax Rate 2: 0.0000
Default: Tax Rate *
☐ Compounding

OTHER
☐ Autosave invoices
☑ Use RAM Indexing
Fiscal Start MM/DD: 01/01
Invoice Offset: 1000
Rounding Value: 0.0050

Paid: $ 0.00 Balance: $ 2108.44 DISCOUNT: $ 0.00 SUB: $ 2027.92
TAX: $ 80.52 $ 0.00
TOTAL: $ 2108.44

records from the database. This will speed up disk access and decrease the size of your file, both desirable things when your customer list starts to grow, especially if you're working from floppies.

The Display menu lets you choose how you want your information organized and displayed. You will always be in Normal mode, unless you're viewing a register. Register mode displays one invoice per line, so you can see how a group of invoices looks at a glance. You can decide to display all invoices or only those that are unpaid. Invoice-It! will organize your invoice information in A/R format, as an invoice or receipt summary, create a detail report for invoices and receipts, or create a trend report to show how all of your customers have been ordering on a month-by-month basis. You can decide to view your information in standard or interlace mode as well.

The Print menu will let you print a single invoice or a range of invoices. You can set up filters to select only those invoices that have not been paid or only those that have never been printed before. Page Setup will bring up a requester that sets the global print parameters for printing reports. The Special menu lets you bring up the online calculator. This can be very helpful when figuring out things on the fly.

Print Layouts

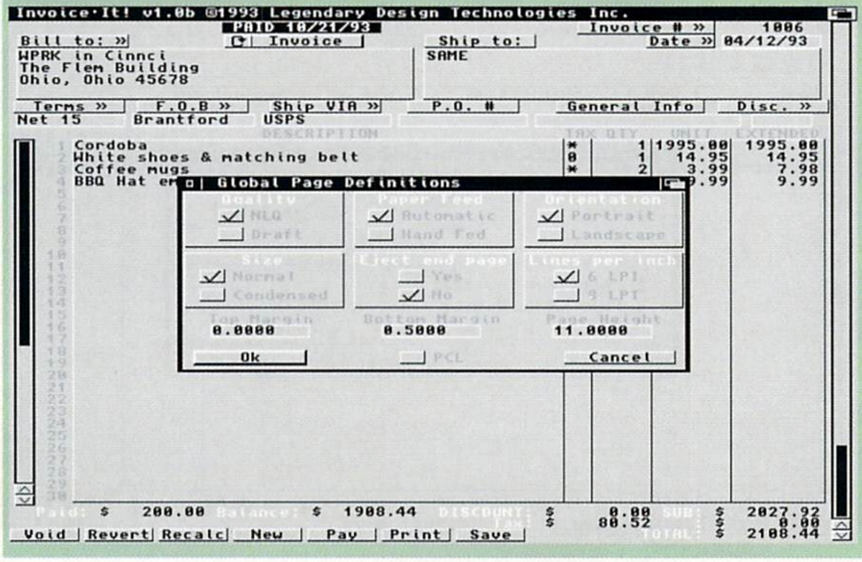
All printing in Invoice-It! requires you to set up a page layout beforehand. You'll have to design an invoice, quotation, and statement layout before Invoice-It! will be able to print anything. Invoice-It! comes with sample layouts for each printout in three different formats: 85x11.ILY is for blank 8.5" x 11" paper, 85x55.ILY is for half-sheet invoice forms and LASER_85x11.ILY is designed for use with laser printers. Load one of these forms into edit and customize or start your own from scratch.

The Quotation layout is identical to the invoice layout. This gives you the ability to put slightly different messages on your quote form, yet still be able to turn it into an invoice easily with the Invoice/Quotation toggle. The sample Statement layout looks different, but is created in the same way as the invoice/quotation forms and with the same tools and environment. Some options that are specific to statement layout include Invoice # (a list of invoice numbers, not just the current invoice), each invoices date, terms, PO#, general info, aging, totals, amounts paid and balances as well as the current or statement date, aging figures and total due. As with invoices and quotes, you can print all outstanding statements or just one at a time.

Keep the Customer Satisfied

Invoice-It! makes it easy to enter, change, and manage all of your customer information. Once you enter the shipping and billing information on a customer, you are presented with the Customer List requester. You can save all the information you entered here for easy, one-click retrieval the next time you need an invoice for that client. You can make changes to individual bills and customers as well as global changes for any particular customer. You don't have to add every customer to the list, but once someone has been added, he cannot be deleted. This prevents complications if someone still has receivables unpaid.

You can import a customer list directly from Address-It! or from an ASCII file. You'll have to put your ASCII file into the order that Invoice-It! understands—Company, Full Name, Address, City, State, Code, Country. Blank fields should be designated with two double quotes (""). Once the ASCII file is created, use the included Convert program to bring it over to Invoice-It! You'll need to tell Convert on which options to exercise. If you use *ProWrite*, or another program that adds a header to the file, select "Ignore First Record" and Convert will do just that. The "Ship to:" section can be left blank, have the same information as "Bill to:>>" duplicated into it or have the word "SAME" typed in the space. The last thing to do is to tell Convert exactly where Invoice-It! is located. Select the ASCII file and Convert does the rest.



Invoice·It! v1.0b ©1993 Legendary Design Technologies Inc.

PAID 10/21/93

Invoice # » 1006

Date » 04/12/93

Bill to: »
WPRK in Cinnci
The Flem Building
Ohio, Ohio 45678

Ship to:
SAME

Terms » Net 15

F.O.B » Brantford

Ship VIA » USPS

DESCRIPTION	TAX	QTY	UNIT	EXTENDED
Cordoba	*	1	1995.00	1995.00
White shoes & matching belt	0	1	14.95	14.95
Coffee mugs	*	2	3.99	7.98
BBQ Hat em			9.99	9.99

Global Page Definitions

Quality: ☑ NLQ ☐ Draft

Paper Feed: ☑ Automatic ☐ Hand Fed

Orientation: ☑ Portrait ☐ Landscape

Size: ☑ Normal ☐ Condensed

Eject end page: ☐ Yes ☑ No

Lines per inch: ☑ 6 LPI ☐ 9 LPI

Top Margin 0.0000

Bottom Margin 0.5000

Page Height 11.0000

☐ PCL

Paid: $ 200.00 Balance: $ 1908.44

DISCOUNT: $ 0.00 SUB: $ 2027.92

TAX: $ 80.52 : $ 0.00

TOTAL: $ 2108.44

Paid in Full

The only thing better than a happy customer is a happy customer who pays his bills! Invoice-It! makes applying payments to invoices a painless process. Clicking on the "PAY" button at the bottom of the invoice in question brings up the Apply Payment requester. Here you can change the invoice number, date, and amount paid. There are provisions for applying partial payments too. You can apply payments to more than one invoice without leaving the requester. Just toggle the "All/Unpaid" switch and scroll through the rest of your unpaid invoices, applying payments as you go. You can do this in Register mode as well, where you can see up to 44 records in interlace at once. All invoices are kept resident in memory once loaded from disk. This makes Register mode ideal for invoice-paying sessions. Just click on the desired record with the Apply Payment requester open and all the pertinent information is copied to the requester. Both positive and negative balances are accepted—overpayments will show as a negative value.

Reports

Being able to organize, display, and print your data in a variety of ways is important to keeping a grip on your business. Invoice-It! can generate six different types of reports to help you see how you're doing: Accounts Receivable, Invoice Summary, Invoice Detail, Receipt Summary, Receipt Detail, and Trend. All of the reports have some common ground when it comes to selecting, displaying, and printing your information. You can design a report around one customer or all of your customers. You can also select a range of dates, either the current year to date, a user-defined range, or all of your invoices. Once these parameters are selected, you can decide to send the output to the screen, a disk file or to the printer. When selected, the included "tinyLDT" font will let you view the entire report across on your screen.

Wish List

As handy as Invoice-It! is, there are some things I'd like to see handled differently. Support for virtual screens would make designing invoices a bit easier. There should be a way to create a default monetary notation. The screen displays a "$" automatically, but doesn't print it. Invoice-It! seems geared towards a company selling products—it's not really optimized for the service industry. I charge by the hour for many services. There is no provision for tabulating and displaying that information. I'd like to be able to change the QTY field to read HOURS and the UNIT field to read RATE without having to resort to my hex editor.

Invoice-It! could use an Undo button, especially in the layout creation pages. It would be nice if there was a way to make "Place" the default mode in the layout screens.

I'd like to see Invoice-It! provide the option of printing out the headings and columns displayed in the layout pages in addition to the raw data. If you use a standard pre-printed form, all you need is the invoice information, but if you use plain paper for your billings, it would be nice to have some kind of headings, boxes, and graphics to make the final output easier to read. There's no way to know what all the data is supposed to mean without titles like "Subtotal" and "Balance" printed next to the dollar figures. I always include a project number and client number in addition to the invoice number. With Invoice-It!, I use the PO# and General Info fields for this information. Without a heading, these are just two strange numbers on the center of the page.

You may find yourself entering old invoices out of order from your previous bookkeeping system. I know I'd like to convert and keep all my records in one program if I could do it simply. Invoice-It! makes this tough to do by insisting that the next invoice you enter have the next invoice number sequentially. There isn't a provision for importing pre-existing invoice files created in *Superbase*, *B.E.S.T.* or whatever. You'll have to use a different field, like general info, for previously-created invoices or maybe reconfigure Invoice-It! for every out-of-order invoice number.

The Grand Total

Invoice-It! generally delivers on its promise of easy invoice creation and printing. The Items that made my wishlist may be too far afield from the avowed purpose of a simple, easy-to-use program. Legendary plans to introduce a Pro or Plus version for all of its products. Regardless, I'll probably start using Invoice-It! at the start of the year because it's so darn convenient and to the point. I'm tired of wrestling my database, word processor, spreadsheet, and page-layout program into performing such a simple task. For ease-of-use and no-nonsense billings and statements, it's awfully tough to beat Invoice-It!

Invoice-It!
Legendary Design Technologies
25 Frontenac Avenue
Brantford, Ontario
Canada N3R 3B7
(519) 753-6120
Inquiry #242

Authorised Amiga Dealer for 6 Years!
Many customised configurations!
Low overhead + Low markup!
Dedicated to delivering the best values!

Computer Answers
917 - Central Ave, Prince Albert, Sask., Can. S6V-4V2
Sales: (306) 764-2888 Fax: (306) 764-0088

(306) 764-2888
9:30AM-6PM CST, Tue - Sat.
(We've added more phone lines so it's easier to get through!)

Amiga 1200's are in stock in Canada and available now!

Amiga 1200's
as low as $29

A1200 prices change! Call for the latest!

with the purchase of a 1942S monitor & adaptor at the regular price.

HD Size	*Amiga 1200* 14Mhz 68020 CPU No FPU Chip 2MB RAM US$*	Cdn$	*Amiga 1200/881-14* 14Mhz 68020 CPU 14Mhz 68881 FPU 3MB RAM US$*	Cdn$	*1200/881-25* 4Mhz 68020 CPU 25 Mhz 68881 FPU 6MB RAM US$*	Cdn$	*Amiga 1200/030-40* 40Mhz 68030 CPU 40Mhz 68882 FPU 6MB RAM US$*	Cdn$
0 MB	$299*	$399	$469*	$629	$599*	$799	$799*	$1059
60MB	$469*	$629	$639*	$849	$769*	$1029	$969*	$1289
120MB	$549*	$729	$719*	$959	$849*	$1129	$1049*	$1399
240MB	$699*	$929	$869*	$1159	$999*	$1329	$1199*	$1599

Amiga 4000/030's are in stock in Canada and available now!

Amiga 4000's
as low as $1 4

A4000 prices change! Call for the latest!

Amiga 4000/030's are fully upgradeable to a 68040 or 68060!

HD Size	*Amiga 4000/030-25* 25Mhz 68030 CPU FPU socket only 4MB RAM US$*	Cdn$	*Amiga 4000/030-50* 25Mhz 68030 CPU 50 Mhz 68882 FPU 6MB RAM US$*	Cdn$	*4000/040-25* 25Mhz 68040 CPU 25Mhz 68040 FPU 6MB RAM US$*	Cdn$	*Amiga 4000/040-40* 40Mhz 68040 CPU 40Mhz 68040 FPU 10MB RAM US$*	Cdn$
120 MB	$1499*	$1999	$1699*	$2269	$2199*	$2929	$3079*	$4099
240MB	$1699*	$2259	$1899*	$2529	$2399*	$3199	$3279*	$4369
340MB	$1799*	$2399	$1999*	$2669	$2499*	$3329	$3379*	$4499
540MB	$1999*	$2659	$2199*	$2929	$2699*	$3599	$3579*	$4769

Every system above includes the installation, formating and setup of the hard drive, memory card, clock & FPU. Every Amiga also includes one full year of Gold service Warranty available at any Fujitsu Warranty Depot accross Canada. In addition, Computer Answers includes a Free Word Processor, Spreadsheet, DataBase, Painting, Music, & a collection of games so that you can use your new computer right out of the box!

Special Purchase! Call Early!		
Brilliance (AGA)	$89**	$119
Final Copy II (AGA)	$37**	$49
Zool or OverKill	$14**	$19
Black & White & Color Printers		
NX1001 9 pin	$129**	$169
NX1040 9 Pin Color	$149**	$199
NX2430 24 pin	$229**	$279
NX2480 24 Pin Color	$259**	$349
SJ-48 Ink Jet	$269**	$359
SJ-144 Color Ink	$439**	$589
DeskJet 500 InkJet	$289**	$379
DeskJet 500C Color	$379**	$509
HP4 Laser	$669**	$889
Primera Color Dye	$799**	$1059
Scanners & Monitors		
Commodore 1084S	$169**	$225
Commodore 1942S	$359**	$479
Epson 300 DPI Color	$499**	$665
IDEK 17" (SP or LP)	$899**	$1199

We have been shipping CD-32's since December!

Amiga CD-32
as low as $369**

*MPEG cards in stock! True full-motion video, only $249**!*

- CD-32 Game Unit
- 11 Button Controller
- Sleepwalkers
- Arabian Knights
- Pinball Fantasies
- John Barnes Soccer

With all 4 games
*$419***
($559 Cdn$)

Expand your CD-32 into a computer!
Ask about new products that add a keyboard, floppy, memory & a hard drive to your CD-32!

Amiga CD-32 & AGA Software!

Winter Super Sports (on CD)
Surf Ninjas (on CD)
Reach for the Gold (on CD)
Legacy of Sorasil (on CD)
Lotus Trilogy (on CD)
Alfred Chicken (on CD)
Zool (on CD)
Dangerous Streets (on CD)
Whales Voyage (on CD)
RoboCod (on CD)
D Generation (on CD)
Diggers (on CD)
Trolls (on CD)
Chaos Engine (on CD)
Deep Core (on CD)
Guiness Records (on CD)
Oscar (AGA)
Krusty's Fun House (AGA)
Burning Rubber (AGA)
Cannon Fodder (AGA)
Mortal Kombat (AGA)
Terminator 2 (AGA)
Alien Breed 2 (AGA)
Uridium 2 (AGA)
Morph (AGA)
Mean Arena (AGA)
Donk (AGA)

each only $34**
($45 Cdn$)

50 Mhz Video Toaster 4000

- Amiga 4000 Computer
- 50Mhz 68882 installed
- 18 MB RAM installed
- 340 MB Hard Drive installed
- Toaster 4000 Card installed
- Toaster 4000 software installed

*$4,499***
(5,999 Cdn$)

14400 Baud Modem with FAX!

- 14,400 Baud (V.42bis for 57,600)
- Send & Receive FAX & Modem
- Caller ID built-in!
- Voice/FAX Switcher built-in!
- Cable & Power Supply included

*$169***
(225 Cdn$)

We can process your order after any of the following methods of payment:
- VISA or MasterCard
- Money Order or Bank Draft

* Now for the fine print. The U.S.$ prices shown are based on the American-Canadian exchange rate on the date of add creation, which was 25.3%. Since we are a Canadian company, all transactions are conducted in Canadian funds & your bank or Credit Card company will convert to American funds when you place an order and we authorise your card, therefore, prices may vary slightly as the exchange rate fluctuates, however this is usually less than ½%. If you are unclear on this, please ask for details. Prices do not include shipping, handling or taxes unless otherwise indicated. Saskatchewan residents add 9% Provincial Sales Tax & Canadian residents add 7% G.S.T. We do not charge or collect any other local, state, provincial, territorial or federal taxes, tarriffs or fees that may be applicable where you live, therefore any amounts that are applicable are the responsibility of the purchaser. Due to the advertising deadline, this add reflects products, pricing & promotions available to us as of it's printing on December 30/93. Pricing, specifications & availability are subject to change at any time, so by the time you read this add in the March 94 Issue, things may well have changed, for better or for worse! Many items may have gone down in price since this add was placed, so if you see something advertised at a lower price, please give us a call & we'll do our best to beat it. Since many of these items are brought in on special pre-paid orders and purchased in fixed lot quantities, there will be a 20% restocking fee on all orders cancelled after processing or returned after shipping (except of course for defectives returned for repair or exchanged for like product). All equipment is NTSC compatible & 120 Volt / 60 Hz so it will work fine anywhere in Canada or the USA. Not responsible for damage, delays or loss during shipping, so insure it if you don't want to take a chance! While we do our best to maintain good inventories of the products advertised, some items are very popular and demand exceeds supply, so call early to avoid dissapointment. Items temporarily out of stock will be back ordered and shipped when available. Ask for details. *I've said it before, and I'll say it again, Amiga Rules!*

Circle 120 on Reader Service card.

Aladdin 4D Tutorial Video Tape Set

by Merrill Callaway

The Product

The *Aladdin 4D Tutorial Video Set* includes two, 2-hour videos for a list price of $59.95. This set of video tutorials developed by the programmers of *Aladdin 4D* is intended to be the next best thing to an in-person tutor. It is meant to reduce the pain and suffering that goes along with learning to use any full-featured, powerful graphics program—particularly if that program is 3-D. Most experienced Aladdin 4D users agree that the program could use a better manual. The gold is there, but it's buried throughout the text. There are eight projects in all, covering many examples of features as they are actually used.

Volumes

On Volume One, the Flying Logo demonstrates word extrusion, flying and rotating animation, texture mapping, and moving a background. Snow Storm demonstrates rotoscoping and panning backgrounds in three levels. Child's Mobile animation teaches the trace mode and hierarchical linking of paths. Sun & Planet exhibits Aladdin 4D's multiple gases feature.

Volume Two continues the space theme with a Space Scene, where you build a space ship, learn about bump maps and more gases; and where you create multiple-attribute list members. Ball Bounce is a puzzle environment you build from blocks, and then animate a helix-wrapped ball chased through the maze by the camera. Insect Waves is a 3-D insect flying down to a stone-walled pool of water where it bounces on the water, making waves. The effects are created with opacity mapping and wave sources. Finally, DaVinci Dance flies a camera around a bitmap. Positioning is featured.

Tricks and Tips

Intermediate users of Aladdin will appreciate some of the tricks and tips demonstrated as the projects unfold. People who have never used Aladdin 4D before will find the videos difficult going, however. A beginner will be forced to search for many obvious things—things obvious to the programmer but not to a beginner, and they are frequently hard to find in the manual. The videos, like the manual, were done by people a little too close to the subject, resulting in important omissions of obvious things and a rather random organization of the material. The videos do little to ease the initial learning curve. Beyond the beginner phase, they do a better job of accelerating the learning progress.

Can these videos teach someone to use Aladdin 4D? Yes, provided one is prepared to persevere and spend the time. Seeing an expert actually doing projects in Aladdin 4D may be the best way to learn it. Teaching by hands-on example is one of the most effective ways to impart knowledge or skill, and video is a popular medium for teaching visually demanding subjects. There are some annoying difficulties one should be aware of before proceeding, however.

Tutorial Videos vs. Manual

Video is an excellent medium for portraying things such as exercise regimens, and anything else not requiring one to read too much fine screen detail in order to understand. This is not the case with these tapes. Computer screens in hi-res flicker wildly on TV, especially when there are close parallel lines of contrasting color, as one finds in every Aladdin gadget. Aladdin 4D's interface is simply not photogenic on TV! Not only do the screens flicker, but there is important information in red which bleeds horribly in video. The worst headache is caused by the myriad of small white numbers on a gray background, which you must try to memorize before the author quits the screen. They are very difficult to see while the tape is playing. They are impossible to read in freeze-frame mode on any consumer VCR. One mostly depends on Greg's voice for the value of the numbers. Anyone interested in actually following along, will be rewinding a lot. At first try, beginners can expect to spend several hours per half hour of tape if they follow along. The videos score very high on content, but the rapid presentation, the impossible-to-read screens, and the poor quality of the script all detract. Aladdin 4D is great fun to use. It is unfortunate that the videos are not.

Presentation

After a short in-person introduction by Devon Graham and Greg Gorby, Greg starts the tutorials, which remain inside Aladdin 4D screens. Teaching quality is very good except that Greg goes too fast and forgets to say everything that he is doing. He particularly forgets to call out some crucial keypresses that you can't see on the screen. He frequently assumes people know more than they do. There are too many times that important information is out of sequence. Confusion could have oftentimes been eliminated by some well-chosen words repeated a few times in the sound track. Experienced users who know their way around Aladdin 4D will not have as much trouble, but then why would they need these tapes? Even though these tapes suffer in their presentation, content is excellent. Each example introduces more concepts to be integrated into the final effects. The first project, a flying logo is essential to video work of all kinds.

Wish List

Since every aspect of Aladdin 4D involves filling in numbers in complex requesters, it would have been refreshing to have had reference notes for each tutorial window showing the appropriate numbers printed on paper in a booklet. Then it would be a simple matter of stopping the tape, looking up and entering the numbers in the printed sheet, and resuming the tape. Printed material would have conveyed the complex numeric information better than the poor quality of NTSC for portraying certain screens. Adding printed notes would not require reshooting the tape.

More talking about the numbers—speaking slowly, and repeating them more than twice—would have been very helpful, particularly because a lot is going on with the keyboard.

There's really no reason to exclude beginners from any tutorial work. A slow start progressing to more advanced stages soon after would not intimidate beginners. Ten minutes of really basic stuff about 3-D space, how the program is organized into paths and objects, how to select and move objects, a little more on how to rotate using the keyboard, how rendering wraps pictures on to wire frames, and so on, would have been a more acceptable start, particularly since this interface is so complex.

Conclusions

Overall, these videos have a place in teaching people to use a complex program. The technical flaws in the video medium itself and the shortcomings of the presentation will insure that it's not exactly couch potato time for serious students of Aladdin 4D. Watching each project all the way through before trying to follow along might help if you have a good memory, or take notes, but these videos are nothing near as comfortable to use as a well written manual. These videos will help people learn Aladdin 4D provided they make the effort to work along. These videos are by no means an escape from learning the manual; rather, they enrich your knowledge of Aladdin 4D by presenting you with useful hands-on examples.

Aladdin 4D Tutorial Video Set
Adspec Programming
467 Arch Street PO Box 13,
Salem, OH 44460
(216) 337-1329
Fax (216) 337-1158
Inquiry #243

HyperCache Professional vs. DynamiCache

by Mark Rickan

Despite the fact that computer storage devices have evolved at an astounding rate, there are two facets of this technology which invariably fail to meet the expectations of most users. Whether you are involved in desktop video production, software development, or personal productivity, at some point in time you have likely come to the conclusion that there is no such thing as too big or too fast. In order to accommodate the increasing demands of efficient file access and data transfer rates, one is typically confronted with two options: to invest in a more sophisticated storage device, or to make more optimal use of an existing form of media.

While the former route is by far the most effective, the cost of upgrading hardware is often quite prohibitive. For those of us with more modest resources at our disposal, Advanced Systems and Software and Silicon Prairie Software have responded with software-based device accelerators which are designed to put your hard drives, floppies and CD-ROMs through a rigorous wait-loss program. As their names attest, *DynamiCache* ($39.99) and *HyperCache Professional* ($49.99) are intelligent disk-caching utilities which claim to increase device performance by as much as 2200%.

Disk Caching in Theory and Practice

The underlying strategy behind the development of disk caches is quite simple. It is a well-established fact that data retrieval is a redundant process. Each time we access an image, text file or spreadsheet, there is a strong likelihood that we are manipulating data which has been encountered several times before. Disk caching software attempts to reduce the number of times applications access a physical storage device by transferring frequently-used data into system memory (RAM). When the system issues a request to retrieve data from a secondary source, the disk cache first determines if this data has been previously retrieved and stored in memory. If the information in question has been transferred before, it will likely be found in RAM. Because RAM is accessed electronically rather than mechanically, application response times may be improved by an order of magnitude when advanced caching techniques are employed. For many, the tradeoff between available memory and increased performance is a welcome one.

HyperCache Professional

Of the two packages, HyperCache Professional has gained wide acceptance as a reputable standby that appeals to both professionals and casual users as an inexpensive means of improving system performance. Based on an N-way associative look-ahead caching algorithm, HyperCache adopts technology commonly used in mini and mainframe computers for cache preservation and arbitration. Combined with its intelligent pre-fetch technique, HyperCache is able to read data from a device before an application actually requests it. While this level of sophistication may sound a bit overwhelming, HyperCache can be used quite comfortably on any Amiga with a minimum of 512K of RAM and version 1.2 or greater of the operating system.

Installing HyperCache is a straightforward process which is well-documented in the accompanying user guide. Once you have determined whether the standard or optimized version of the software is most appropriate for your system, you simply copy the two required files from the distribution disks to a suitable destination. The program may then be used by invoking it directly from the CLI or by placing the required command line options in your startup-sequence. As an example, if you wish to run HyperCache on your DH0: drive with the default 512K cache size, you would type in the following:

```
HyperCache -v DH0
```

In addition to the volume name of the AmigaDOS device you wish to use, optional parameters may be specified to represent the values for the cache size and geometry. The number of sets, amount of prefetch and number of cache lines to be used may all be set according to the performance demands of the actual system. While the program itself automatically calculates optimal settings by default, power-users who are inclined to experiment are encouraged to discover which values best suit their own particular needs. To assist in deciding which cache configuration will provide the best result, HyperCache will report performance statistics either for individual devices or all those with active caches.

DynamiCache

As a relative newcomer to the world of Amiga performance enhancement utilities, DynamiCache has entered the market with inspiring claims about its high levels of performance, configurability and ease of use. Similar to HyperCache in the caching strategy that it employs, DynamiCache uses a set-associative, line-oriented caching system which implements a least-recently-used (LRU) replacement algorithm. Beyond this, however, the two packages take fundamentally different approaches when it comes to customization and use. While the authors of HyperCache have found that the more traditional method of command line execution is suited to a program of its nature, DynamiCache provides a graphical interface that is font sensitive and closely adheres to Commodore's 2.0 Style Guide suggestions. This setup proves to be particularly intuitive as you discover the extent to which the program may be configured.

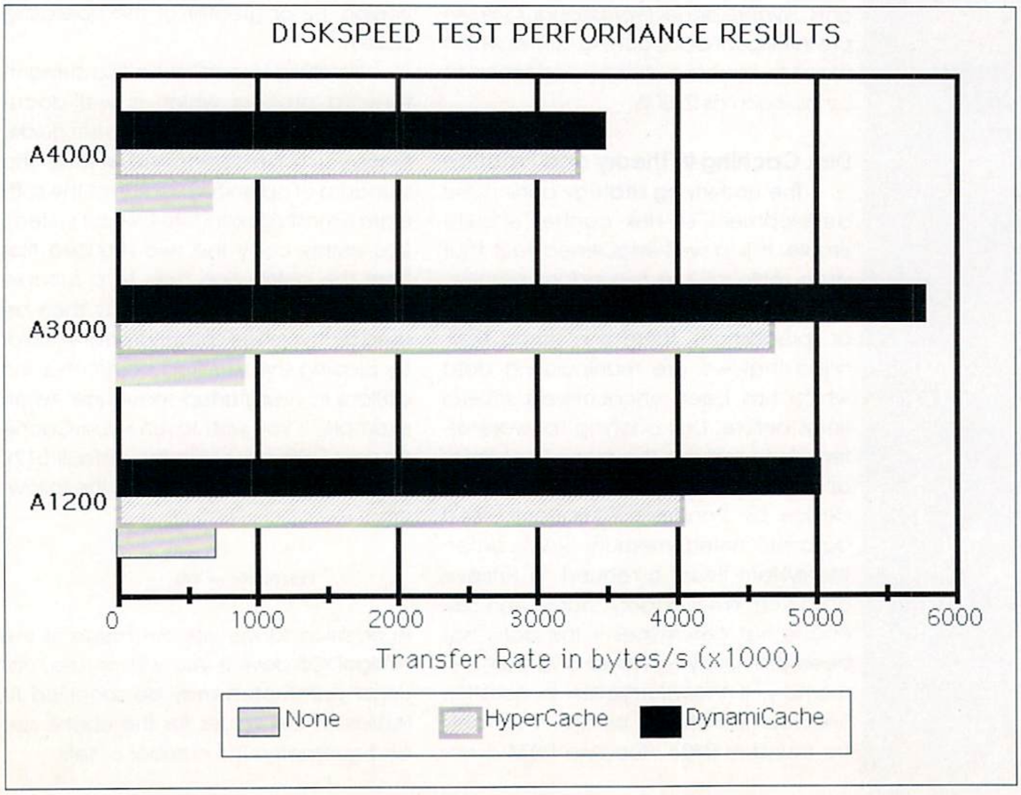
Requiring a minimum of 2MB of RAM and revision 2.04 of the operating system, DynamiCache may be installed by simply dragging the program icon from the distribution disk to the WBStartup drawer or any other suitable destination. Once this process has been completed, the main configuration window may be activated by double-clicking on the program icon. Because DynamiCache automatically recognizes cachable devices, it is simply a matter of selecting the device from a scrolling list in order to set its parameters. And while HyperCache requires the user to run multiple instances of the program for more than one device, DynamiCache has provisions for dynamically caching an unlimited number of devices at the same time. With DynamiCache, caching of individual hard drive partitions may also be enabled or disabled independently, a feature which will prove to be particularly convenient for those users with unique system setups.

Gadgets within the DynamiCache interface allow the user to set such values as the minimum and maximum cache sizes, the scheme used for purging cache data, the device type (Hard Drive, Floppy Drive or Removable Media), the read-ahead sector size, and enabling or disabling device write-thru caching. Write-thru caching copies data into cache memory while it is being written to disk. While this process leads to slower initial writes to the cached device, it significantly speeds up subsequent accesses. All of these parameters may be altered at any point in time, and performance may be monitored through the separate DynamiCache status window. This statistical display provides information concerning the amount of memory used, device caching parameters, the number of device accesses, the number of cache hits, and the hit ratio. The last two values are particularly important because they indicate how many times the data being accessed was already in cache memory, and the percentage of cache hits relative to total device access attempts.

The Worth of Cache

As with all applications which claim to provide a significant performance enhancement, the most effective means of determining whether a particular program will be useful in your own working environment is experimentation. Always keep in mind that benchmarks are a distant second behind hands-on evaluation, especially since they often indicate ideal rather than real-world results. Other factors which should be taken into consideration include the hardware configuration and types of applications which will be used most frequently. As I quickly discovered, it is not surprising that a peppy 2.5" IDE drive in an stock A1200 would outperform its A4000 sibling when the 4000 is equipped with a mid-range hard drive setup.

I took the opportunity to test HyperCache and DynamiCache on several platforms, including the A1200, A3000, and A4000 series systems. Using the excellent freely distributable *DiskSpeed* utility by MKSoft, I tested each system using identical caching parameters in order to gauge how hard disk transfer rates would be altered with the addition of either package. Each system was equipped with



4MB or RAM, base processors and cache sizes set to 512K. The A1200, A3000 and A4000 systems respectively made use of 80MB IDE, 120MB SCSI and 240MB IDE Maxtor model hard drives. An overview of these results appears in Table 1.0.

Not surprisingly, both HyperCache and DynamiCache substantially improved the speed of the hard disks under various types of data manipulation. As indicated in Figure 1.0, it is not unreasonable to expect typical transfer rates to improve by as much as 400%. And while DynamiCache ultimately proved to be the superior contender in improving hard drive performance, HyperCache was never far behind. By contrast, in the area of CD-ROM access rates, HyperCache stood out as the clear winner—cutting down reverse non-existent database searches of 930 Fred Fish disks in KingFisher from 3:45.58 to 1:12.08 on a Hitachi dual-speed SCSI CD-ROM drive. As you can imagine, this speedup alone would justify the purchase of either package for those making extensive use of CD-ROM drives.

Both HyperCache and DynamiCache are excellent, low-cost packages which are well worth your attention if you are interested in improving the performance of your hard drives, floppies or CD-ROMs. Investing in either program amounts to a win-win situation, but based on price, performance and the degree of configurability, I would have to give DynamiCache the nod as the current winner. It is truly a first-class product and one which I believe we will be hearing more about in the future.

DynamiCache
Advanced Systems & Software
1329 Skiles St.
Dallas, TX 75204
(214) 239-2000
FAX (214) 821-3464
Inquiry #244

HyperCache Professional
Silicon Prairie Software
2326 Francis St.
Regina, SK, Canada
S4N 2P7
(306) 352-0358
Inquiry #245

AMI.VGA Video Adapter

by Don Maxwell

Are you weary of interlace flicker, but leery of spending big bucks for a VGA display enhancer? Well, cheer up. A clever hardware and software combination by an enterprising English company may save your eyesight without breaking your budget. It's called the AMI.VGA. It produces a stable VGA signal with no interlace flicker, regardless of the Amiga display mode. It installs outside the computer. And it costs only £45—about U.S. $70. That's around one-third the price of the expensive display enhancers. (You can buy a used VGA monitor for the price difference.). Before you get too excited, however, there are two limitations that you will want to consider.

The AMI.VGA requires the Super Denise chip. On the Amiga 500, 600, and 2000 the number of colors is limited to 16—and to 4 on interlaced screens. (There are no color limitations on the AGA machines.) I'll discuss these limitations in detail below. First, however, let's see how the AMI.VGA works.

Installation

Installation is as easy as 1-2-3. The AMI.VGA unit, which is about the size of an audio cassette box, plugs into the video connector on the back of the computer. Plug a standard Amiga monitor cable into a pass-through connector on the back end of the AMI.VGA unit and a VGA cable into a 15-pin connector on the side. You're done! There's no need to open the computer's case, so there's no problem with the warranty. And, of course, transferring AMI.VGA to another Amiga is a snap.

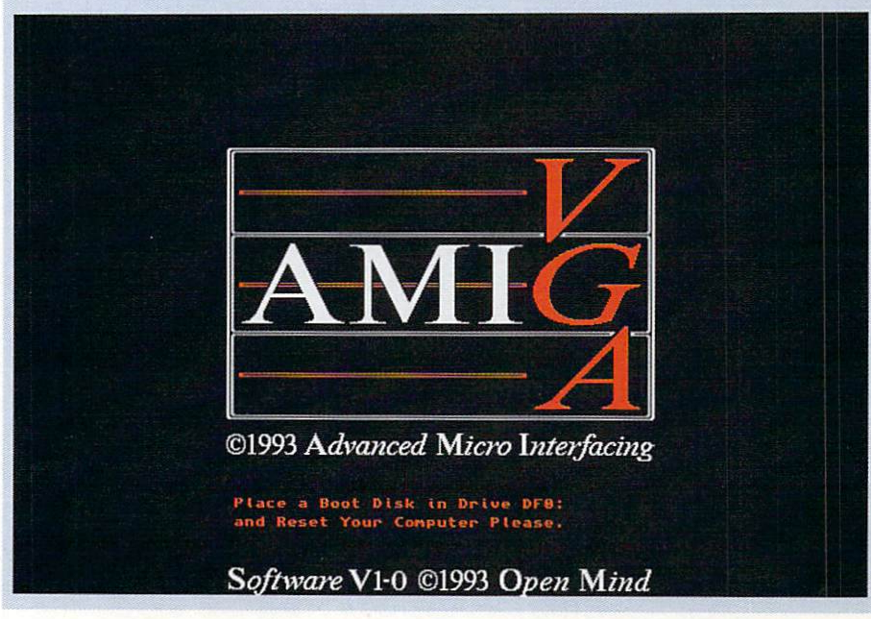
Operation

For AMI.VGA to work, a special program called *VGA* must be run and then the computer must be re-booted. The VGA program survives warm boots, however, so there's no need to run it again as long as the power stays on. The manual says to boot from the AMI.VGA disk. I found, however, that the AMI.VGA program can be run at any time. Before it is run, the display passes through to the standard Amiga monitor, and the VGA monitor does not receive a usable signal. As soon as the VGA program runs, the VGA monitor will display a black screen bearing the AMI.VGA logo and this instruction:

```
Place a Boot Disk in Drive DF0:
and Reset Your Computer, Please.
```

If you wish to boot from a hard drive, ignore that first line and just re-boot the computer. In a few seconds, a similar-looking screen will come up, this one asking whether you want to use the VGA monitor or the CGA Amiga monitor. ("CGA" here means the standard NTSC or PAL monitor. It could also be an A-520 RF Modulator for sending the display to a TV.)

```
Press LEFT Mouse Button for VGA
Push RIGHT Mouse Button for CGA
```



©1993 Advanced Micro Interfacing

```
Place a Boot Disk in Drive DF0:
and Reset Your Computer Please.
```

Software V1·0 ©1993 Open Mind

If you choose CGA, the computer will finish booting, and the display on the Amiga CGA monitor will be exactly what you're used to. If you go for VGA, however, the CGA monitor will be inactive and the Workbench screen will come up—steady as a rock—on the VGA monitor. Whichever mode you select, you should turn off the monitor that is not in use so that it won't try to sync to a signal beyond its frequency range.

Each time you re-boot the computer thereafter, you will be presented with the VGA/CGA screen. If you switch the power off, however, you must go through the complete two-boot process again. The manual also does not mention that the VGA program can be run semi-automatically on startup. Simply copy the program to the boot disk or hard drive and add the path and VGA to the user-startup file. For example, DF0:VGA will work fine. It's still necessary to re-boot the computer manually, but the program falls through to the CGA/VGA screen without putting up the "restart" screen. If for some reason you didn't want the VGA program to run automatically, you could add this to the User-startup file:

```
ASK "Do you want to run the VGA program now?  y/n"
            if warn
                        df0:VGA
endif
```

Inside Stuff

The real ingenuity is in the software. In fact, the AMI.VGA hardware unit contains only the three connectors and a few off-the-shelf components to split the video signal between the VGA and CGA monitors. (The test unit was sealed shut, so naturally I pried it open to see what was inside. The empty spaces were filled with hot-melt glue.) And what does the software do? It sets the Super Denise chip for the 31.5KHz VGA frequency and produces a video signal quite similar to the Productivity mode displays, de-interlacing the video signal before it ever gets to the video port. There are hints at what's going on. In the Preferences Screen Mode editor, for instance, you may notice that the monitors are listed in a different order from usual. More significant is that the monitor selected in the Overscan editor becomes "vga.monitor," no matter what other monitor you normally use. It's impossible to change this while in VGA mode. The resolution for "vga.monitor" is exactly the same as for "multiscan.monitor": 640 x 480 and 680 x 495 maximum overscan. This is true for all screens, interlaced or not, although the manufacturer, Advanced Micro Interfacing, insists that the resolution of interlaced screens is 640 x 960. AMI.VGA appears to work with all conventional Amiga screen modes. The only exception I found is that programs which specify screens or windows that lie outside the dimensions of the AMI.VGA display may not open. For example, I found that Amiga *WordPerfect* would refuse to start when its configuration file specified a screen size wider than AMI.VGA's 680 x 495 maximum. A quick change of the configuration, and all was well. Some other programs—mostly games and European demos—were viewable only on the CGA monitor, even though the VGA mode was selected when the program was run.

Manual

The manual is almost painfully brief—four small pages of actual instructions and information—though adequate for most needs. Not mentioning that the VGA program can run automatically, however, seems a glaring omission. I discovered the trick despite my assumption that it wouldn't work because they didn't say it would. Oddly, a representative of Advanced Micro Interfacing told me on the phone that AMI.VGA "will be installable on a hard drive by the end of November." But he didn't say that it's already a reality.

Limitations

The low price and ease of installation are offset to some extent by a few limitations of AMI.VGA.

1. As I noted above, on the pre-AGA Amigas only 16 colors are available on non-interlaced screens and only four colors on interlaced screens. This means that HAM and extra-halfbrite displays are unavailable for the VGA monitor on these machines. If a program opens a screen with more colors than AMI.VGA can handle, you will see only the first two or four bitplanes, depending on whether the screen is interlaced, or not. The program will be working normally, though, and the AMI.VGA display will have no effect on the it. The number of sprites is also limited on pre-AGA Amigas. Four (including the mouse pointer) are available with the 2.04 ROM, but only one with the 1.3 ROM. Of course, everything works normally in CGA mode on these machines. And with the AGA Amigas, AMI.VGA allows up to 256 colors (eight bitplanes).

2. It is impossible to see both the standard Amiga "CGA" display and a VGA display at the same time. To change from one to the other, you must re-boot the computer. In this respect, the AMI.VGA is quite different from the inside-the-computer display enhancers, which provide a separate VGA signal and do not interfere with output to the Amiga video connector. Some Amigas have a monochrome composite jack, and you might think that both the monochrome monitor and the VGA monitor could work simultaneously. Not so; composite is composite, whether monochrome or color. (It is possible to use a display enhancer such as Flicker Free Video and AMI.VGA at the same time—though there's probably not much point to it.)

3. Programs that require a plain vanilla 68000 processor can't be run in VGA mode on accelerated Amigas which use a software switch to temporarily disable the 030 or 040 processor. This is so because the accelerator is disabled only for the next *one* reset. That reset acts like a cold boot—because a different processor begins working—so the VGA program must be re-run and then the computer must be re-booted a second time to enable the VGA display mode. But that second re-boot switches back to the accelerator's processor, so VGA won't work and the game won't run. Fortunately, many accelerators can be disabled by flipping a physical switch.

AMI.VGA Compared to Other Display Enhancers

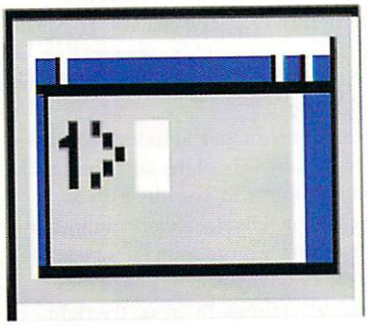
How does the AMI.VGA differ from the expensive VGA display adapters? They all fit inside the computer, either in the video slot or beneath the Denise chip. They all cost more than $200. Installing them can be tricky and it voids the warranty.

Using fairly complex video circuitry, they intercept the Amiga NTSC display information, convert it to the standard VGA signal, and send it to a separate jack so that a VGA monitor can display it. They accomplish all that with hardware alone, and once installed they are essentially invisible. They won't work with all Amiga screen modes, however, especially Super HiRes. The main difference, then, is that AMI.VGA does its job primarily with the software, not the hardware.

Conclusion

Despite the limitations, the AMI.VGA is an effective and reasonably-priced alternative to the inside-the-computer display enhancers. Coupled with any VGA monitor, it will produce a reliable, flicker-free display. However, you will probably want to retain your CGA Amiga monitor or use a TV for the few programs that are incompatible with it.

AMI.VGA Video Adapter
Advanced Micro Interfacing
292 Shirley Road
Shirley Southampton SO1 3HL
England
Telephone: 703-51-1164
From the U.S., prefix with 011 44
Inquiry #246



cli directory

by Keith Cameron

Command Line Editing

In last month's column, we examined some features of the Shell. Specifically, we looked at how to cut and paste from the Shell, for example, and how to use the Shell's command history. To follow that up, I'd like to look at a few more features of the Shell.

Let's begin by looking at editing the command line. To be quite honest, I must admit that editing as I'm about to demonstrate is not really practical in most situations. But there are times when such methods may come in handy. I won't bore you by discussing the commonplace forms of editing, such as using the backspace key or the delete key. Rather, I will concentrate on some of the more unusual aspects. Say, for example, that you use your command history to call up a previously used command line, such as the following:

```
dir df1:letters/business
```

This indicates that there is a subdirectory called BUSINESS in a directory called LETTERS in drive df1. You now decide you want to copy this directory to a location in drive df0. When you call the command up by using the command history, your cursor will be at the end of the command line. You want the path to remain the same, but you need to change the AmigaDOS command that is used, as well as adding a destination, so that it will look like the following:

```
copy df1:letters/business df0:
```

To move your cursor to the beginning of the command line quickly, hit the shift-left cursor combination. This will put the cursor on the letter "d" in DIR. You can then use the delete key to delete DIR and then replace it with COPY. After this is done, you then need to move to the end of the line to add DFO:. To do this, hit the shift-right cursor combination and you will be at the end of the line, ready to type in the new material.

Let's look at a similar situation. Say that you have created a document and, for some reason, you want to copy it to several different destinations. After typing in the initial command line, ensuing command lines will remain the same except for the destination, which will of course change each time. When you use the command history to call up the initial command line, your cursor will once again be at the end. To quickly delete the last word, you can hit the Ctrl-W combination. This will delete the word immediately to the left of the cursor.

Some other editing commands you might find useful are the Ctrl-X, Ctrl-K, Ctrl-Y, and Ctrl-U combinations. Ctrl-X deletes the line your cursor is in. This is helpful when you've typed in a long command line and path and then realize you need to execute another command first. Rather than backspace over 20 or 30 characters, just hit Ctrl-X. If you find yourself in the middle of a command line and want to delete from that spot to the end of the line, hit the Ctrl-K combination. Its counterpart, the Ctrl-U combination, will delete everything left to the beginning of the line. If you find that you have made a mistake, the Shell even has its version of UNDO; that is, the Ctrl-Y combination. It will replace the characters you have deleted with the above commands.

In addition to the editing features discussed above, there are some other ones you might like to be familiar with. However, I have little use for these, as they basically perform a function performed more easily by standard keys. For example, rather than hit the return key, you can hit the Ctrl-M combination to achieve the same effect. Likewise, the backspace key is replaced by Ctrl-H, which also deletes the character immediately to the left.

If you've been doing a lot of work from your Shell and your history is loaded with various commands, you may not want to take the time to search through the history by using the up and down cursor keys. If you know the first few letters of the command line, you can simply type these in and then hit the Ctrl-R combination. This will return you to the most recent occurrence of that command. The Shift-up cursor combination will achieve the same effect. Here is a possible scenario for this situation. Say that you get a directory listing, as we did at the beginning of this article, using this command line: DIR DF1:LETTERS/BUSINESS.

Following that, you execute several other commands, such as the COPY, LIST, MAKEDIR, CD, and various other commands. Now you want to get a new listing for the BUSINESS subdirectory, for you've made some changes as a result of executing the above mentioned commands. Rather than flip through the command history 20 or 30 times, you can simply type DIR and then hit Ctrl-R and the command line you want will appear. Remember, though, that the most recent occurrence of the DIR command will appear.

If you happen to execute a command that produces results that scroll off your screen, you may want to hit your space bar. This will stop the scrolling. I find this especially useful when using the TYPE command to examine documentation of shareware. When you are ready to continue, hit the backspace key. For those of you accustomed to IBMs, this is comparable to the break or pause key on the keyboard. You can even close your Shell from the command line by typing Ctrl-\.

Now let's change course and take a look at redirection. By default setting, input to the Shell is by way of the keyboard; that is, you type in commands for the computer to execute. Also by default, the output of the Shell is the screen, or Shell window; that is, you see the results of your commands occur on the screen. By using the redirection characters < and > you can change these default settings. By using the right angle bracket (>), you can change the output, while using the left angle bracket (<) allows you to change the input.

I find this useful when writing some of my columns that require reprinting output from the DIR command. Say that I want to reproduce the listing for the DIR command. This would, of course, consist of a long list of files and directories. Rather than type all of that in by hand, I can simply type the following:

```
DIR >COLUMN DF0: <RETURN>
```

As soon as this command line is executed, the drive will spin and the cursor will move down a line to a new prompt. The actual listing will not be produced on screen; remember that it has been redirected. Instead, a new file called "column" has been created and a text listing of the directory listing is contained within it. It then becomes a simple matter for me to somehow paste that in my column using my word processor.

Remember to observe proper paths in using the redirection character. In the above model, for example, the new file will be created in your root directory. I find such output redirection especially useful with the DIR command, as illustrated above, and the LIST command.

This concludes this short series on basics of the Shell. I think that you will agree that AmigaDOS has come quite a ways since its inception. The use of such features as discussed this month and last month demonstrate how easy and sensible the Amiga Shell is, especially when compared with other systems.

•AC•

Please Write to:
Keith Cameron
c/o Amazing Computing
P.O. Box 2140
Fall River, MA 02722-2140

What' s Wrong?
Are the 24-Bit
Graphic cards missing something?
WeThink So!!!

The TALON

~~699.95~~
~~599.95~~
~~499.95~~
New Price

Main Objectives
Lowest Cost
Video Option
Retargetable Graphics
FCC Approved
Paint Program
Zorro II & III
64-Bit Display Controller
Multimonitor Support
EGS
Workbench Emulation
Programmable resolution

dkb

50240 W. Pontiac Trail
Wixom, Michigan 48393

Tech Support (810) 960-8750
Sales (810) 960-8751
Fax (810) 960-8752

The Eagle is taking Flight!!!

Circle 194 on Reader Service card.

bug bytes

tips

hints

workarounds

suggestions

updates

fixes

by John Steiner

Solution to DPaint IV and A4000 Problem

In the November 1993 issue of *Amazing Computing*, Jeannine Deubel wrote regarding a problem with the A4000 and *DeluxePaint IV*. She has subsequently solved the problem and thought she would pass along the solution.

After discussing the problem with Commodore, Electronic Arts, and my local Amiga dealer, they all agreed that it had to be a hardware problem, and because I had such an early A4000, and because the problem was consistent (I could never cut out a custom brush without getting a Guru message), the problem had to be a bad motherboard. After waiting three months for a new motherboard from Commodore, I finally was able to make the swap (at least Commodore didn't charge me for the board...it was within the one-year warranty). The new motherboard fixed the problem, and now I can cut out brushes in DPaint! I guess a lot of the early motherboards were a bit flaky.

Problems with FixIcon Program

Jim Shaffer Jr. writes with a question about a shareware program called *FixIcon*.

I have a number of (mostly) old icons which display garbage when used on a Workbench with a depth greater than two bitplanes. Some time ago I downloaded a program called FixIcon which purported to solve this problem. However, it claims that some icons which display the problem have no problem. And other problem icons are actually made worse! Does anyone have another fix?

A2630 & DKB 2632

Lu Beranek of Melbourne, Australia is having a problem with the combination of an A2630 and a DKB 2632 32-bit RAM board.

The symptoms are that the system won't boot. I get the gray screens, and then the hard drive light comes on and stays on, and there the system sits. If I boot off a floppy, it's the floppy light that comes on and stays on. DKB has been very good about it. They have taken it back, works fine on their systems, exchanged it, but the problem stays at my end.

I have tried the two-board combination in other A2000 systems, so I figure the problem is likely to be in the A2630 board. So far I haven't been able to find someone locally (Melbourne, Australia) who wants to try the 2632 on their A2630. I have upgraded the ROMS on the A2630 to the latest versions.

My system is an A2500/30 with a 68882 and 4MB, 32-bit RAM, A2091 SCSI controller (also with latest ROMS) with 50MB hard drive and 2MB, 16-bit fast RAM, 100MB hard drive, DKB MegAChip 2MB Agnus, A2320 display enhancer, ECS Denise, and KS 37.175. The fast RAM starts the 4MB, 32-bit at $00200000 and the 16-bit starts at $0600000 (this was added when the 2632 problem wouldn't go away).

If you have any suggestions for Lu, send them in.

Notes on Bars&Pipes Professional

Mark, the technical support representative from The Blue Ribbon SoundWorks, wrote an e-mail letter in response to the comments submitted by Max Yoder in *AC v.8.12*:

It is untrue that saving Preferences modifies the bppdirs file in the support directory. Saving Preferences, by using the Save button in the Environment requester (accessed from the Prefs/Environment menu option), saves the Preferences as ToolTypes in the "Bars&Pipes Professional.info" file.

It is true that if you rename your "Bars&Pipes Professional.info" file, B&PP will be unable to find and save the ToolTypes correctly.

The bppdirs file is used only to keep track of current directories for various files, such as Tools, Accessories, Patch Lists, etc. B&PP first looks in the Support directory for this file. If not found, it looks in the s: directory.

As far as notating quarter notes as quarter notes, enter notes with the Pencil at full duration (set the Articulation to the two notes with the tie beneath them). They should always be notated as quarter notes, unless they are not on a quarter note boundary, in which case they are split up.

Most references say that splitting a quarter note is the correct procedure if the quarter note does not begin on a quarter note boundary. This is what B&PP does.

Janus and the Enforcer

Mark Odell, a frequent contributor to "Bug Bytes," writes with a couple of comments regarding reader inquiries. In *AC 8.9*, Mark comments on using *Enforcer*.

As I understand it, the requirement of Enforcer with this software arises from the possibility of someone trying to run Janus under a 68040 (or a 68020/030 with a 68851 MMU). Unless forcibly stopped, the '040 will try to allocate the BridgeBoard's 64KB (XT) or 128KB (AT) of shared memory as part of '040 cache memory, with the result that the BridgeBoard will not boot. Running Enforcer before BindDrivers prevents this.

So the problem is not necessarily bad code calls in the software, but rather that the new and improved processor defaults to doing something that turns out to be harmful.

GigaMem Problem

Mark comments on a possible workaround from a question in "Bug Bytes" from *AC 8.7*.

If Mr. Laeufer knows someone who has an A1200 or A4000, he could try copying to his LIBS: directory version 37.10 of 68040.library, which comes with Workbench 3.0 (making sure that he renames his original 68040.library first), and seeing if that helps any.

Possible Solution to ICD RAM Card Problem

Bruce R. Matthews sent an e-mail letter regarding Bob Devries' difficulties using his ICD ADSCI 2080 board with Workbench 2.1 as mentioned in *AC* 9.1.

I had the same problem he describes when I upgraded from 1.3 to 2.04. Although he is using WB 2.1, I think the problem may be the same. It was caused by a file contained in the ICD 2080 install/driver disk that *is loaded onto the system. The file is necessary for WB 1.3, but completely fouls up the operation under 2.04. After several miserable days of unproductive troubleshooting over the Christmas holidays last year, I called ICD as soon as they re-opened. The tech support guy told me to simply delete the file. I did and everything worked beautifully and has continued to work flawlessly ever since.*

Unfortunately, Mr. Matthews does not remember the specific filename that needs to be deleted; however a quick note to ICD technical support should provide the answer.

Workbench 3.0 Bug Revisited

In *AC* 8.12, Henning Vahlenkamp noted a problem using the VERSION command on the mathieeedoubbas.library. Mark Odell of Sunnyvale, CA, comments on his attempts to duplicate the problem.

I tried to duplicate on an A1200HD/40 (with a Microbotics 4MB Fast RAM expansion) exactly what Mr. Vahlenkamp did, with this result:

```
1.AmigaShell> version libs:mathieeedoubbas.library
mathieeedoubbas.library 38.2
```

No Gurus. Then I checked the versions of Kickstart and Workbench:

```
1.AmigaShell> version
Kickstart 39.106, Workbench 39.29
```

It sounds as though there could be a problem with a different version of Workbench 3.0 (and its libraries) he might have, or perhaps that library file somehow got itself corrupted; or a problem with his hardware, such as flaky memory or lack of a math coprocessor.

Service Information on CDTV ROM Drives

John Jurkowski of Wilbraham, MA, wrote a note regarding Jim Choate's letter in the AC 8.11 "Bug Bytes." He comments that there is a service manual and that complete specifications are available. The manual cost is $10, and should be available from SMG, Commodore's service and support organization.

68000 CPU Clock Speed

D. Lee Binford Walters of Tucson, AZ, sent a fax regarding Mr. Rische's letter in the AC 8.11 "Bug Bytes" about Motorola MC68000 CPUs running faster than 12MHz.

Motorola does not technically manufacture a MC68000 that runs faster than 12MHz, but Motorola does manufacture the CMOS version of the MC680000 designated the MC68HC000. The MC68HC000, as of 1990, ran as fast as 16MHz and according to releases in electronic/computer design trade publications, Motorola has plans to release or has released a version that is as fast as 25MHz.

Most semiconductors can be run faster than originally specified by the manufacturer although this may severely shorten the life of the product.

More on the Director in AGA Mode

Trevor McGavin of Lower Hutt, New Zealand, writes with a possible solution to Robin Hoare's *Director* software bug in AGA mode. Trevor works for the Meteorological Service of N.Z., where they use an A3000 to animate weather satellite and radar imagery. He spent many weeks writing the animation software using the Director v.2. Since getting an A4000, they quickly discovered their animation program would not work. He notes one possible solution.

There is another temporary fix which we may make if there is no upgrade in the near future. Using the program "skick" (v3.35) we have been able to boot the Amiga 4000 under Workbench 2.0, and the Director then works fine, but only from floppy —there is no access to the IDE hard disk(s) in the A4000 (one needs a scsi.device file to mount the hard disk, and the scsi.device for the built-in IDE interface on the A4000 is in ROM, not on disk. To get hard disk access, which we will require, we will have to purchase a SCSI interface card and a SCSI hard disk. This should work, and we would then get the increased processing power of the A4000's 68040 chip. However, we would not be able to make use of the enhanced graphics which the AGA chipset and Workbench 3.0 provides on the A4000.

I hope that Mr. McGavin also made note of the workaround published in 9.1 "Bug Bytes." If those techniques work, they can save the cost of the SCSI hardware, and get online with the A4000 and the Director much more quickly.

GVP IOExtender Software Switch Problem

Dr. Barlow Soper of Ruston, LA, writes to comment that the GVP IOExtender board software does not switch properly between the A3000 parallel port and the GVP board's parallel port.

One must save any change to disk to get it to take effect, instead of simply clicking on the "use" button. A number of calls and faxes to GVP finally got them to admit that the software is faulty but they did not seem very concerned about fixing it.

Does anyone have any comments or workarounds?

Beetle Mouse Comments

Dr. Soper also writes,

If one uses a Beetle Mouse and is put off by its cheap feel, the weighted Amiga mouse ball will fit in it, giving the Beetle Mouse a "quality" feel.

Migraph Scanning Tray Slide Fix

If one uses a scanning tray like the one Migraph sells and finds that it is difficult to move smoothly, a little automotive paste wax on the slides smooths it right out.

That's all for this month. If you have any workarounds or bugs to report, or if you know of any upgrades to commercial software, you may notify me by writing to:

John Steiner
c/o Amazing Computing
Box 2140
Fall River, MA 02722

...or leave e-mail to
John Steiner on Portal
73075,1735 on CompuServe
Internet mail can be sent to
John_Steiner@cup.portal.com
Fax John Steiner at (701) 280-0764
(8:30 a.m. to 5:30 p.m. Central Time, Monday–Friday)

•AC•

CanDo:

An Interactive Authoring Tool

Part 7: Buttons, Sorting, Printing, and AmigaGuide Help

by Randy Finch

For this installment, I decided to write a complete application including help via AmigaGuide, Commodore's help system. The CanDo deck is named StarTrek_Videos. This program allows the user to input information about his or her *Star Trek* video collection. The information can be sorted and printed. I have used the program to input my collection of 29 video tapes containing 174 episodes of *Star Trek* and have found it to be a very useful tool. Of course, with a few changes, the program could be used for any type of video collection.

Star Trek: The Video Collection

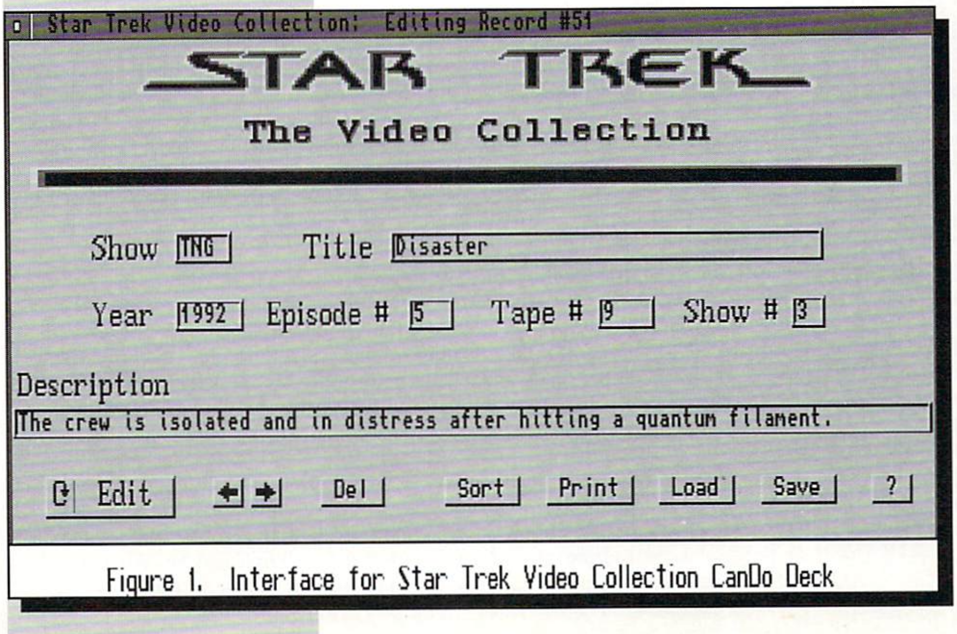
The user interface for the CanDo deck is shown in Figure 1 and a print-out of the deck is shown in Listing 1. Please refer to these during the discussion below.

The interface consists of three image buttons, six text buttons, one area button, four text fields, and three integer fields. The position, properties, and limitations of these objects can be found in the Definition sections of the program listing. The text "The Video Collection" near the top of the card, the horizontal bar, and all the labels for the text and integer fields were generated in the RefreshWindow global routine which is called from the card's AfterAttachment script.

Text and Integer Fields

The text fields consist of the four input fields labeled Show, Title, Year, and Description. The integer fields consist of the three input fields labeled Episode #, Tape #, and Show #. Since I have discussed these type of objects in previous installments, I will only discuss what these fields are used for.

The Show field is used for a three-letter code representing the type of *Star Trek* show. At this time, only three types make sense: ORG (Original *Star Trek*), TNG (*The Next Generation*), and DS9 (*Deep Space 9*). The Year and Episode # fields are used to store the year the show aired and the sequence within the year. (I use the same year for the entire TV season. Thus, I designate all shows for the 1993-94 season as 1994.) Tape # and Show # refer to the number given to the tape and the position of the show on the



Show TNG
Title Disaster
Year 1992
Episode # 5
Tape # 9
Show # 3
Description
The crew is isolated and in distress after hitting a quantum filament.

Figure 1. Interface for Star Trek Video Collection CanDo Deck

Figure 1: The user interface.

tape. The Title and Description fields are self-explanatory. The actual names used for these fields all begin with a period. This allows the information in the fields to be quickly moved to and from an array variable as discussed in an earlier installment (*AC* v8.11).

You may be wondering why the Year field is a text field rather than an integer field. Well, I had some recordings of re-runs and did not know the year they were originally shown. I wanted to use the word "Old" in this field to designate this fact. Thus, I made it a text field. One interesting aside: I had originally made the Year field an integer field. It was only after having added about 50 records to the database that I decided to change it to a text field. After changing it and loading the database, I discovered that the year values displayed fine in the new text field even though they were originally saved as integers.

Image Buttons

The three image buttons are the big "Star Trek" button at the top of the card, and the left and right arrow buttons at the bottom of the card. The first image button uses a brush named StarTrek.br that I created in *Deluxe Paint IV*. When this button is pushed, the master index of the AmigaGuide help file is displayed. This will be discussed later. Be aware that the background color for an image button is transparent. Therefore, to press an image button, you must position the pointer over the non-transparent part of the image. If you do not, the button will not be activated.

The arrow buttons use brushes that were included with CanDo. They are used to step forward and backward one record in the database when in Edit mode (see Edit/Add Rollo Button section below).

While adding the "Star Trek" button to the deck, I discovered an interesting quirk of CanDo. If you select a brush file to use for an image button, switch to your paint program, modify the brush, and re-save it, you cannot simply switch back to CanDo and select the same file name again. If you do, the original image is still used. If you select a totally different file and then revert to the originally chosen file, the same thing occurs. The only way you can get CanDo to recognize the modified file saved from your paint program is to save the deck and then re-load it. Apparently, once a brush is selected for use as an image button, CanDo buffers the file and it cannot be replaced with a modified brush using the same filename.

The Del Button

This text button allows you to delete the currently displayed record when in Edit mode. When a record is deleted using the DeleteArray function, all of the indexes of records after it are renumbered.

The Sort Button

This text button allows you to sort the database. When complete, the entire database will be sorted by tape number. The show number will be in sequence for each tape number. The database must be sorted for the printed output to look right (see The Print Button section below).

Typically, the way to accomplish a double sort as described above is to first sort by the secondary variable (Show #) and then to sort by the primary variable (Tape #). However, this only works if the sort algorithm used for the second sort maintains the ordering of the first sort. Apparently, the SortArray command does not do this. It uses an algorithm that is faster but destroys the ordering of the database. Therefore, instead of using two SortArray commands in sequence to accomplish the double sort, I used one SortArray command to sort by Show # and then used a routine I wrote entitled SortTapeNum to do the second sort. SortTapeNum uses a simple bubble sort. It is slower than other algorithms, but it does maintain the order of the first sort. On my 28MHz 68030 Amiga 2000, 174 records were sorted in 1.5 minutes.

The Print Button

This text button allows you to print out a formatted report for the database on a Hewlett-Packard LaserJet 4 printer. It will probably work for other model LaserJets and compatibles.

Following through the OnRelease event script for the Print button, you will see that several printer escape sequences are defined for formatting text and positioning the cursor. A file is then opened to the PAR: device, and the formatted output is sent to the printer using FileWriteChars and FileWriteLine commands. The former command sends the text without attaching a line feed (LF) to the end of the text while the latter does attach a line feed. Since I am printing directly to the parallel port rather than going through a printer driver (PRT:), a line feed does not get converted into a carriage return / line feed (CR/LF) combination. Therefore, a CR must be added to the end of any text written with a FileWriteLine command. The output shows the contents of eight video tapes on each page. This is controlled by a loop that looks for the variable NumTapes to become a multiple of eight.

If you want to modify the script to work with your printer, you will need to replace the escape codes with those for your printer. If an equivalent code is not available for your printer, then additional code may have to be written. Another way to modify the script is to use the standard Amiga printer escape sequences that are recognized by the Amiga printer drivers. If you do this, the file should be opened to PRT: rather than PAR:. When you print to the PRT: device, the current Preferences printer driver will intercept all the standard codes and convert them to the equivalent codes for the printer. Since a LF will be converted to a CR/LF, the CRs must be removed from the FileWriteLine commands.

The Load and Save Buttons

These two text buttons each bring up the standard Amiga file requester allowing you to select the path and the file to load or save. The AskForFileName function is used. Notice that in each case the FN variable is passed to this function as the file specification. This variable is initially NULL but will be set equal to whatever path and filename is chosen. By using this file spec, the file requester will always display the last selected directory rather than the current directory. The default filename will be the previously selected filename. Since the AskForFileName function returns a NULL when the Cancel button on the file requester is selected, the current value of FN is stored in FNold before the file requester is displayed and, if the Cancel button is selected, equated back to FN. This prevents losing the previous path and filename when the user cancels a load or save operation.

The ? Button

This text button is used to obtain help about other objects on the screen. It is a toggle button. This means that when the button is pressed it will toggle to an ON state, remaining highlighted. When it is pressed again, it will toggle to an OFF state and the highlighting will disappear. When this button is ON, selecting other objects on the card will bring up an AmigaGuide help file with information about the selected object. When this button is OFF, selecting other objects causes them to operate in the normal way. This will be discussed more in the AmigaGuide Help section.

The Edit/Add Rollo Button

The area button in the lower left corner of the card has a rollo border type. A rollo border has a curving arrow on the left side of the button. This is not a special type of button that allows you to specify a list of text strings to cycle through when selected. Rather it is just a plain old area button with a different appearance. To simulate a real rollo button, one must use a script to do all the work.

There are only two states that the rollo button can be in: Edit or Add. The current state of the button is stored in the variable Mode. This variable is set to "Edit" in the RefreshWindow global routine which is called when the card first appears. Also, the word "Edit" is printed on top of the button. When the button is pushed, the OnRelease event script executes. This script checks the current state of the button via the Mode variable. If Mode is equal to "Edit," then it is changed to "Add," the word on top of the button is overwritten with "Add" to reflect the change, four buttons are disabled, the window title is changed, the Title and Description fields are cleared, and the Show field is activated. You are now ready to add new records to the database. The DisableObject command is used to disable the left arrow, right arrow, Del, and Sort buttons. When disabled, the buttons will have a ghosted look to them, giving visual feedback that they cannot be selected.

If Mode is equal to "Add" when the rollo button is pushed, then the four previously disabled buttons are enabled. However, there is a problem. The ghosted look goes away for image buttons but not for text buttons. This is true even though the buttons are actually enabled. The way to clear the ghosted look from the buttons is to execute the ClearWindow command. But this creates another problem. All of the text and graphics that were drawn on the screen after the card was attached disappear. Thus, the RefreshWindow routine must be called to re-display everything that disappeared. This is a rather roundabout way of removing the ghosted look of a disabled button, but it is the only way I could find to accomplish the task.

AmigaGuide Help

As I mentioned in the fourth installment of this series (v8.12), CanDo 2.51 supports AmigaGuide help files. The AskForHelp function accomplishes this task. The Star Trek Video Collection program makes use of a help file. It is named StarTrek.guide and is shown in Listing 2. I modeled the help file after one of the CanDo help files. A printout of the AmigaGuide help window is shown in Figure 2.

Basically, an AmigaGuide help file is an ASCII file with embedded commands. There are three kinds of commands: label commands, node label commands, and action commands. The first two types of commands begin with the @ symbol. These commands provide AmigaGuide with information about how text should appear and how the various pieces of information link together. Since AmigaGuide help files are in ASCII format, they can be created easily with a text editor or word processor. This is unlike creating help files for the MS-Windows platform where exotic codes have to be inserted, the file stored in Rich Text Format, and then compiled.

All label and node label commands, except for textual link points, must have the @ symbol in the first column of a line. The first line of an AmigaGuide help file must be a @database command. This command specifies the name of the AmigaGuide file.

I do not know if the @author, @(c), and @$VER: commands serve any purpose other than to provide information. I was unable to find them documented anywhere. It seems obvious what the @wordwrap and @font label commands should do, but neither worked as expected. I believe these commands are new to the AmigaGuide system for AmigaDOS 3.0, but I was not able to test it with that version of the operating system.

The @index command specifies which node in the help file will be displayed when the Index button is pressed at the top of the AmigaGuide help window.

The rest of the StarTrek.guide file consists of nodes. These are sections of text surrounded with the @node and @endnode commands. Nodes contain the actual text that will be displayed in a help window. Node label commands can be inside an @node section.

The first node in StarTrek.guide is Main. By default, this is the name of the node that will be displayed when the Contents button at the top of the help window is pressed. This can be overridden within individual nodes with the @toc node label command.

The only thing that appears within the nodes of StarTrek.guide is the text to be displayed and textual link points. Notice that the first line of text in each node is the same as the window title as specified in the @node label command. The reason for doing this is to be kind to people who want to print the contents of the help window. Since the window title is not printed, it is nice to have the window title text in the printed text so it is easy to see the subject of the help file.

Textual link points appear in nodes StarTrek_MasterIndex and StarTrek_EditAdd. The latter demonstrates how a textual link point does not have to be in the first column of a line. A textual link point has the following syntax:

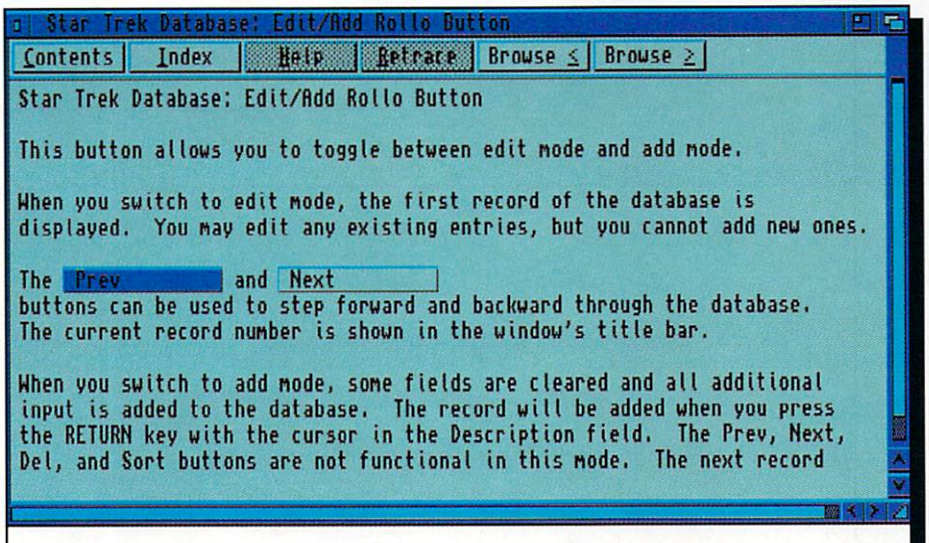
```
@{<label> <command>}
```

The <label> is the text string that appears within the button that AmigaGuide creates for the link point. You can see how it appears in Figure 2. The <command> can be any of the action commands. The most common one is the link command. It tells AmigaGuide to display another node. This is the essence of hypertext. The other available commands allow new windows to be opened and closed, ARexx macros and strings to be executed, system commands to be executed, and the database to be shut down. Node StarTrek_MasterIndex is a good example of how link points can be used for an index into the entire help file.

I have touched only the high points of AmigaGuide help files. If you would like more details, I recommend either DevWare's DevDisk 92 or Fred Fish 870. They contain Commodore's information on AmigaGuide.

Getting Star Trek Help

The Star Trek Video Collection program uses a global routine for accessing the StarTrek.guide help file. This routine accepts one



Star Trek Database: Edit/Add Rollo Button

This button allows you to toggle between edit mode and add mode.

When you switch to edit mode, the first record of the database is displayed. You may edit any existing entries, but you cannot add new ones.

The Prev and Next buttons can be used to step forward and backward through the database. The current record number is shown in the window's title bar.

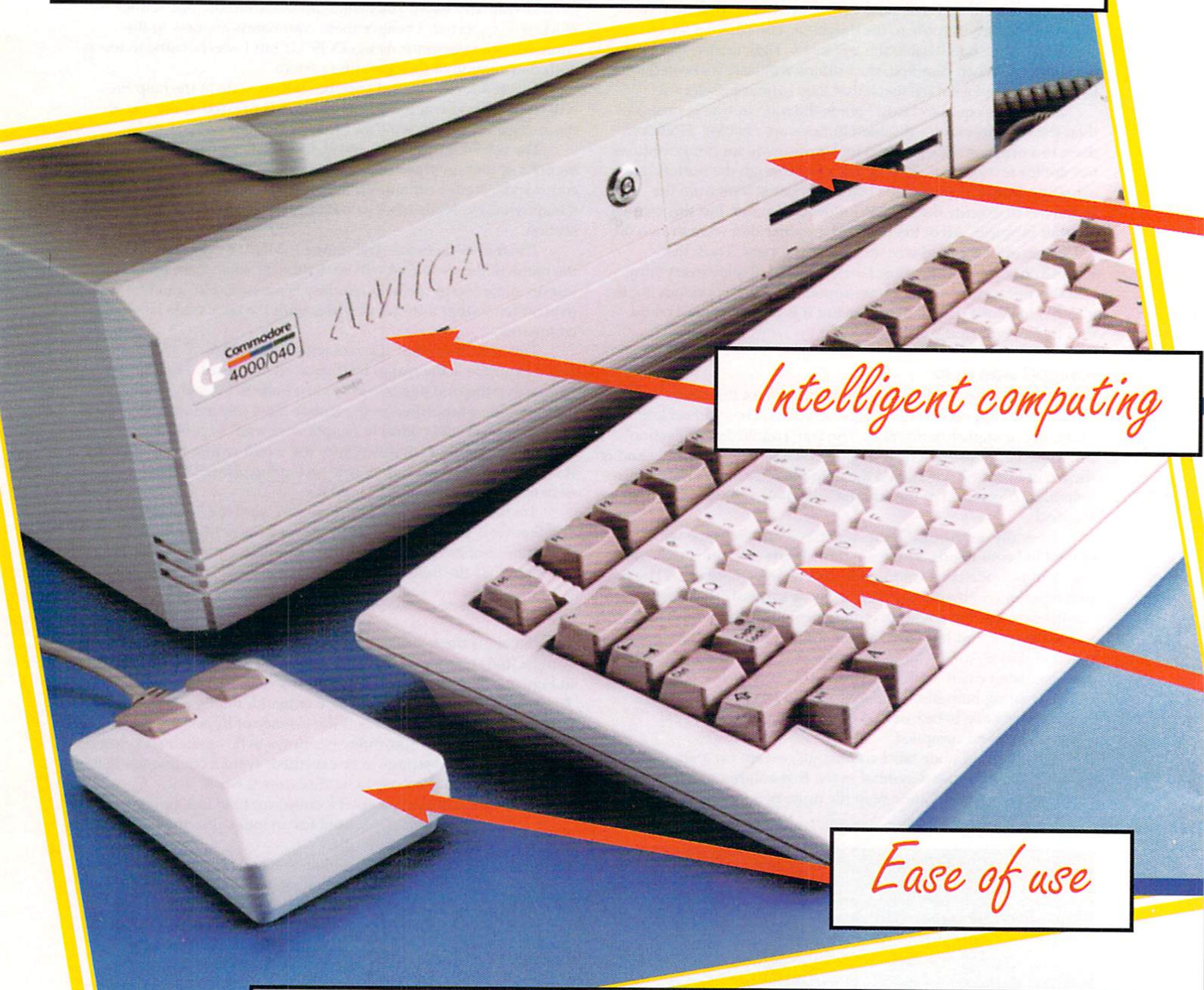
When you switch to add mode, some fields are cleared and all additional input is added to the database. The record will be added when you press the RETURN key with the cursor in the Description field. The Prev, Next, Del, and Sort buttons are not functional in this mode. The next record

Figure 2. AmigaGuide Help File StarTrek.guide Being Displayed

Figure 2.

➛

Great team mates work together...



Amazing Computing, the first monthly Amiga magazine, has adapted to the ever-changing needs of the Amiga user, to bring forth the best information, on time, and in the clearest manner possible.

Amazing Computing has always made a commitment to the Amiga community and lives up to that high standard of quality each month by bringing its readers the latest Amiga news and information from around the globe.

Amazing Computing, ACs TECH, & ACs GUIDE are the best resources for any Amiga user.

for more information call
1-800-345-3360

Great processing power

Tailored to the user

Amazing Computing & the Amiga

argument, the ending of the node name. This ending is appended to the string "StarTrek_", which is common to all node names except for Main. Once the argument is appended, the complete node name is available. The AmigaGuide help filename and the complete node name are used as arguments for the AskForHelp function.

There are several ways you can get help while running the program. First, you can press the Help key while no fields are selected. The KeyInput object named "Help" will have its OnUp script activated. This script calls GetHelp, asking it to display the master index. Second, you can press the big "Star Trek" image button at the top of the screen. This will display the master index as the Help key does. Third, you can toggle the ? button to ON and select a field or button. Each field has an OnClick event script that checks to see if the ? button is ON. If it is, an appropriate node within the help file is displayed. Each button checks the state of the ? button in its OnRelease script. If the state is ON, then the normal function of the button is suspended and an appropriate node in the help file is displayed.

There are several anomalies you should be aware of when using AmigaGuide help files. First, if you use the AskForHelp function with a non-existent help file, you will receive no error message. In fact, nothing will happen. Make sure the help filename is correct or put in a check for the file's existence before using AskForHelp. Second, if you do not press Enter after the last @endnode when creating the help file, the text of that node will not be displayed in the help window. The title appears, but the text is missing. Third, when you use the Help key while browsing a CanDo deck, CanDo's internal help display overrides any help that the deck itself displays. This does not happen when in SuperBrowse mode or when executing the deck as a stand-alone application created by TheBinder or TheMultiBinder.

Listing 1

```
Listing 1. StarTrek_Videos CanDo Deck


*************
* Deck "StarTrek_Videos"
* Time 19:45:51
* Date 11/01/93
*************

*************
* Card(s) in deck.
*  Card "StarTrek"
*************
* 1 Card(s), 1 were printed.
*************

*************
* Natural order of Cards
*  Card "StarTrek"
*************

*************
* Global Routine(s) in deck.
*  Routine "GetHelp"
*  Routine "NextRecord"
*  Routine "RefreshWindow"
*  Routine "Show Record"
*  Routine "SortTapeNum"
*************
* 5 Global routines(s), 5 were printed.
*************

*************
* Card "StarTrek"
  AfterAttachment ; used to be AfterStartup
    SetRGB 0,72,165,170
    SetRGB 2,0,210,231
    SetRGB 3,0,54,255
    Do "RefreshWindow"
  EndScript
  Window "UserWindow"
    Definition
      Origin 0,0
    Size 640,200
    Title "Star Trek Video Collection"
    NumberOfColors 4,102400
    WindowColors 0,1,0 ; Detail, Block, Background
    WindowObjects CLOSEBUTTON
    WindowFlags ACTIVATE SEPARATESCREEN TOFRONT
  EndScript
  OnCloseButton
    Quit
  EndScript
EndObject
TextField ".Show"
  Definition
    Origin 120,85
    Size 32,8
    Justification LEFT
    MaxFieldLength 3
    InitialText ""
    Border DOUBLEBEVEL ,2,1 ; BorderStyle, MainPen, ExtraPen
  EndScript
  OnRelease
    SetObjectState ".Title",ON
  EndScript
  OnClick
    If ObjectState("Question")=TRUE
      Do "GetHelp","Show"
    EndIf
  EndScript
EndObject
TextField ".Title"
  Definition
    Origin 268,85
    Size 290,8
    Justification LEFT
    MaxFieldLength 35
    InitialText ""
    Border DOUBLEBEVEL ,2,1 ; BorderStyle, MainPen, ExtraPen
  EndScript
  OnRelease
    SetObjectState ".Year",ON
  EndScript
  OnClick
    If ObjectState("Question")=TRUE
      Do "GetHelp","Title"
    EndIf
  EndScript
EndObject
TextField ".Year"
  Definition
    Origin 120,110
    Size 40,8
    Justification LEFT
    MaxFieldLength 4
    InitialText ""
    Border DOUBLEBEVEL ,2,1 ; BorderStyle, MainPen, ExtraPen
  EndScript
  OnRelease
    SetObjectState ".Episode",ON
  EndScript
  OnClick
    If ObjectState("Question")=TRUE
      Do "GetHelp","Year"
    EndIf
  EndScript
EndObject
IntegerField ".Episode"
  Definition
    Origin 280,110
    Size 24,8
    Justification LEFT
    MaxFieldLength 2
    Limits 0,30
    InitialInteger 0
    Border DOUBLEBEVEL ,2,1 ; BorderStyle, MainPen, ExtraPen
  EndScript
  OnRelease
    SetObjectState ".TapeNum",ON
  EndScript
  OnClick
    If ObjectState("Question")=TRUE
      Do "GetHelp","Episode"
    EndIf
  EndScript
EndObject
IntegerField ".TapeNum"
  Definition
    Origin 410,110
    Size 32,8
    Justification LEFT
    MaxFieldLength 3
    Limits 0,100
    InitialInteger 0
    Border DOUBLEBEVEL ,2,1 ; BorderStyle, MainPen, ExtraPen
  EndScript
  OnRelease
    SetObjectState ".ShowNum",ON
  EndScript
  OnClick
    If ObjectState("Question")=TRUE
      Do "GetHelp","TapeNum"
    EndIf
  EndScript
EndObject
ImageButton "StarTrekBrush"
  Definition
    Origin 90,13
    Image "CanDo:Brushes/StarTrek.br"
    Highlight COMPLEMENT
    ButtonFlags NONE
  EndScript
  OnRelease
    Do "GetHelp","MasterIndex"
  EndScript
EndObject
AreaButton "Edit_Add"
  Definition
    Origin 26,174
    Size 90,16
    Border ROLLO ,2,1 ; BorderStyle, MainPen, ExtraPen
    Highlight COMPLEMENT
    ButtonFlags NONE
  EndScript
  OnRelease
    If ObjectState("Question")=TRUE
      Do "GetHelp","EditAdd"
    Else
      SetPrintFont "ruby",12
      SetPrintStyle SHADOW ,2,3
      SetPen 1,0
      SetDrawMode JAM2
      If Mode="Edit"
        PrintText "Add ",63,176
        Let Mode="Add"
        DisableObject "Prev"
        DisableObject "Next"
        DisableObject "Delete"
        DisableObject "Sort"
        SetWindowTitle "Star Trek Video Collection: Adding Record
#"||CurIndex+1
        SetText ".Title",""
        SetText ".Description",""
        SetObjectState ".Show",ON
      Else
        EnableObject "Prev"
        EnableObject "Next"
        EnableObject "Delete"
        EnableObject "Sort"
        ClearWindow ;unghost disabled buttons
        Do "RefreshWindow" ;redisplay text
        SetWindowTitle "Star Trek Video Collection: Editing Record
#"||CurIndex
        Do "Show Record"
      EndIf
    EndIf
  EndScript
EndObject
ImageButton "Prev"
  Definition
    Origin 141,175
    Image "CanDo:Brushes/Left.br"
    Highlight COMPLEMENT
    ButtonFlags NONE
  EndScript
  OnRelease
    If ObjectState("Question")=TRUE
      Do "GetHelp","Prev"
    Else
      Let Tapes[CurIndex]=GetDBObjects        ;save curr record
      Let CurIndex=PreviousArrayIndex(Tapes,CurIndex)  ;get prev record
      If Not SearchFound               ;if no prev record
        Let CurIndex=LastArrayIndex(Tapes)      ;go to last record
      EndIf
      Do "Show Record"
    EndIf
  EndScript
EndObject
ImageButton "Next"
  Definition
    Origin 167,175
    Image "CanDo:Brushes/Right.br"
    Highlight COMPLEMENT
    ButtonFlags NONE
  EndScript
  OnRelease
    If ObjectState("Question")=TRUE
      Do "GetHelp","Next"
    Else
      Do "NextRecord"
    EndIf
  EndScript
EndObject
TextButton "Delete"
  Definition
    Origin 215,175
    Font "System",8 ; FontName, PointSize
    PrintStyle SHADOW ,2,3 ; Style, Pen1, Pen2
    TextColors 1,0,NORMAL  ; PenA, PenB, DrawMode
    Text " Del "
    Border BEVEL ,2,1 ; BorderStyle, MainPen, ExtraPen
    Highlight COMPLEMENT
    ButtonFlags NONE
  EndScript
  OnRelease
    If ObjectState("Question")=TRUE
      Do "GetHelp","Del"
    Else
      DeleteArrayEntry Tapes,CurIndex      ;delete record
      If VarType(Tapes[CurIndex])="Nothing"  ;see if last
        Let CurIndex=LastArrayIndex(Tapes)  ;find new last
      EndIf
      Do "Show Record"
    EndIf
  EndScript
EndObject
TextButton "Sort"
  Definition
    Origin 300,175
    Font "System",8 ; FontName, PointSize
    PrintStyle SHADOW ,2,3 ; Style, Pen1, Pen2
    TextColors 1,0,NORMAL  ; PenA, PenB, DrawMode
    Text " Sort "
    Border BEVEL ,2,1 ; BorderStyle, MainPen, ExtraPen
    Highlight COMPLEMENT
    ButtonFlags NONE
  EndScript
  OnRelease
    If ObjectState("Question")=TRUE
      Do "GetHelp","Sort"
    Else
      SortArray Tapes,INTEGER ,".SHOWNUM"
      Do "SortTapeNum"
      Let CurIndex=FirstArrayIndex(Tapes)    ;go to first record
      Do "Show Record"
    EndIf
  EndScript
EndObject
TextButton "Load"
  Definition
    Origin 447,175
    Font "System",8 ; FontName, PointSize
    PrintStyle SHADOW ,2,3 ; Style, Pen1, Pen2
    TextColors 1,0,NORMAL  ; PenA, PenB, DrawMode
    Text " Load "
    Border BEVEL ,2,1 ; BorderStyle, MainPen, ExtraPen
    Highlight COMPLEMENT
    ButtonFlags NONE
  EndScript
  OnRelease
    If ObjectState("Question")=TRUE
      Do "GetHelp","Load"
    Else
      Let FNold=FN
      Let FN=AskForFileName(FN,"Load a File")  ;get a filename
      If FN<>"" AND Exists(FN)        ;if file exists
        Dispose Tapes          ;del curr DB
        Let Tapes=LoadVariable(FN)      ;load it
        Let CurIndex=FirstArrayIndex(Tapes)  ;go to first record
        Do "Show Record"
      Else
        Let FN=FNold
      EndIf
    EndIf
  EndScript
EndObject
TextButton "Save"
  Definition
    Origin 517,175
    Font "System",8 ; FontName, PointSize
    PrintStyle SHADOW ,2,3 ; Style, Pen1, Pen2
    TextColors 1,0,NORMAL  ; PenA, PenB, DrawMode
    Text " Save "
    Border BEVEL ,2,1 ; BorderStyle, MainPen, ExtraPen
    Highlight COMPLEMENT
    ButtonFlags NONE
  EndScript
  OnRelease
    If ObjectState("Question")=TRUE
      Do "GetHelp","Save"
    Else
      Let FNold=FN
      Let FN=AskForFileName(FN,"Save a File")  ;get a filename
      If FN<>""
        SaveVariable Tapes,FN        ;save it
      Else
        Let FN=FNold
      EndIf
    EndIf
  EndScript
  EndObject
  AKey “Help”
    Definition
      QualifiersPressed NONE
      KeyPressed HELP
    EndScript
    OnUp
      Do “GetHelp”,”MasterIndex”
    EndScript
  EndObject
  IntegerField “.ShowNum”
    Definition
      Origin 543,110
      Size 16,8
      Justification LEFT
      MaxFieldLength 1
      Limits 1,6
      InitialInteger 1
      Border DOUBLEBEVEL ,2,1 ; BorderStyle, MainPen, ExtraPen
    EndScript
    OnRelease
      SetObjectState “.Description”,ON
    EndScript
    OnClick
      If ObjectState(“Question”)=TRUE
        Do “GetHelp”,”ShowNum”
      EndIf
    EndScript
  EndObject
  TextField “.Description”
    Definition
      Origin 8,150
      Size 624,8
      Justification LEFT
      MaxFieldLength 100
      InitialText “”
      Border DOUBLEBEVEL ,2,1 ; BorderStyle, MainPen, ExtraPen
    EndScript
    OnRelease
      If Mode=”Edit”
        Do “NextRecord”
      Else ;mode is Add
        Let CurIndex=CurIndex+1
        InsertArrayEntry Tapes,CurIndex
        Let Tapes[CurIndex]=GetDBObjects
        SetWindowTitle “Star Trek Video Collection: Adding Record
#”||CurIndex+1
        SetText “.Title”,””
        SetText “.Description”,””
        SetObjectState “.Show”,ON
      EndIf
    EndScript
    OnClick
      If ObjectState(“Question”)=TRUE
        Do “GetHelp”,”Description”
      EndIf
    EndScript
  EndObject
  TextButton “Question”
    Definition
      Origin 593,175
      Font “topaz”,8 ; FontName, PointSize
      PrintStyle SHADOW ,2,3 ; Style, Pen1, Pen2
      TextColors 1,0,NORMAL  ; PenA, PenB, DrawMode
      Text ” ? ”
      Border BEVEL ,2,1 ; BorderStyle, MainPen, ExtraPen
      Highlight COMPLEMENT
      ButtonFlags BUTTONTOGGLES
    EndScript
  EndObject
  TextButton “Print”
    Definition
      Origin 370,175
      Font “System”,8 ; FontName, PointSize
      PrintStyle SHADOW ,2,3 ; Style, Pen1, Pen2
      TextColors 1,0,NORMAL  ; PenA, PenB, DrawMode
      Text ” Print ”
      Border BEVEL ,2,1 ; BorderStyle, MainPen, ExtraPen
      Highlight COMPLEMENT
      ButtonFlags NONE
    EndScript
    OnRelease
      If ObjectState(“Question”)=TRUE
        Do “GetHelp”,”Print”
      Else
        Let ESC=HexToChars(“1B”)
        Let CR=HexToChars(“0D”)
        Let FF=ESC||”&l0H”
        Let Reset=ESC||”E”
        Let Pitch10=ESC||”(s10H”
        Let Pitch20=ESC||”(s20H”
        Let Bold=ESC||”(s3B”
        Let Normal=ESC||”(s0B”
        Let ItalOn=ESC||”(s1S”
        Let ItalOff=ESC||”(s0S”
        Let ULOn=ESC||”&d0D”
        Let ULOff=ESC||”&d@”
        Let SetCol25=ESC||”&a25C”
        Let SetCol40=ESC||”&a40C”
        Let SetCol45=ESC||”&a45C”
        Let SetCol55=ESC||”&a55C”
        Let LPI8=ESC||”&l8D”
        Let Index=FirstArrayIndex(Tapes)
        OpenFile “PAR:”,”P”,WRITEONLY ,OLDFILE
        FileWriteChars “P”,LPI8
        Let NumTapes=0
        Loop
          FileWriteChars “P”,Pitch10
          FileWriteLine “P”,SetCol25||Bold||”Star Trek: The Video
Catalog”||Normal||CR
          Nop ;FileWriteLine “P”,CR
          FileWriteChars “P”,Pitch20   ;set compressed
          Loop
            Let Number=Tapes[Index].TapeNum
            FileWriteLine “P”,Bold||ULOn||”TAPE
”||Number||Normal||ULOff||CR
            FileWriteLine “P”,CR
            Loop
              FileWriteChars “P”,Tapes[Index].ShowNum||”. ”
              FileWriteChars
“P”,Bold||ItalOn||Tapes[Index].Title||ItalOff||Normal
              FileWriteChars “P”,SetCol40||Tapes[Index].Show
              FileWriteChars “P”,SetCol45||Tapes[Index].Year||”-”
              FileWriteChars “P”,Tapes[Index].Episode
              FileWriteLine “P”,SetCol55||Tapes[Index].Description||CR
              Let Index=NextArrayIndex(Tapes,Index)
            Until Tapes[Index].TapeNum<>Number OR SearchFound=FALSE
            Let NumTapes=NumTapes+1
            If SearchFound=TRUE AND NumTapes//8<>0
              FileWriteLine “P”,CR
              FileWriteLine “P”,CR
            EndIf
          Until SearchFound=FALSE OR NumTapes//8=0
          FileWriteChars “P”,FF
        Until SearchFound=FALSE
        FileWriteChars “P”,Reset  ;reset printer
        Close “P”
      EndIf
    EndScript
  EndObject
* End of Card “StarTrek”
*************

*************
* Global routine “GetHelp”
  Let Node=”StarTrek_”||Arg1
  Let ErrHelp=AskForHelp(“CanDo:Decks/StarTrek.guide”,Node)
* End of routine “GetHelp”
*************

*************
* Global routine “NextRecord”
  Let Tapes[CurIndex]=GetDBObjects      ;save curr record
  Let CurIndex=NextArrayIndex(Tapes,CurIndex)  ;get next record
  If Not SearchFound              ;if no next record
    Let CurIndex=FirstArrayIndex(Tapes)    ;go to first record
  EndIf
  Do “Show Record”
* End of routine “NextRecord”
*************

*************
* Global routine “RefreshWindow”
  SetPrintFont “ruby”,12
  SetPrintStyle SHADOW ,2,3
  SetPen 1,0
  SetDrawMode JAM2
  PrintText “Show”,60,84
  PrintText “Title”,205,84
  PrintText “Year”,60,109
  PrintText “Episode #”,180,109
  PrintText “Tape #”,334,109
  PrintText “Show #”,466,109
  PrintText “Description”,8,135
  PrintText “Edit”,63,176
  Let Mode=”Edit”
  Nop
  SetPrintFont “Pica Wide”,11
  SetPrintStyle BOLD EMBOSSED ,2,3
  SetPen 1,0
  SetDrawMode JAM1
  PrintText “The Video Collection”,164,39
  SetDrawMode JAM1
  SetPen 2
  AreaRectangle 18,58,602,9
  SetPen 3
  AreaRectangle 23,59,593,7
  SetPen 1
  AreaRectangle 28,60,584,5
* End of routine “RefreshWindow”
*************
```

```
*************
* Global routine "Show Record"
  SetDBObjects Tapes[CurIndex]    ;show the record
  SetWindowTitle "Star Trek Video Collection:  Editing Record #"||CurIndex
  SetObjectState ".Show",ON      ;put cursor in Show Field
* End of routine "Show Record"
*************

*************
* Global routine "SortTapeNum"
  Let One=FirstArrayIndex(Tapes)
  Let CurBottom=LastArrayIndex(Tapes)
   Loop
     Let Two=NextArrayIndex(Tapes,One)
      Loop
        If Tapes[One].TapeNum>Tapes[Two].TapeNum
           Let Temp=Tapes[One]
           Let Tapes[One]=Tapes[Two]
           Let Tapes[Two]=Temp
         EndIf
         Let One=Two
        Let Two=NextArrayIndex(Tapes,Two)
     Until Two>CurBottom OR SearchFound=FALSE
     Let One=FirstArrayIndex(Tapes)
    Let CurBottom=PreviousArrayIndex(Tapes,CurBottom)
  Until CurBottom=One
* End of routine "SortTapeNum"
*************
```

Listing 2

Listing 2. StarTrek.guide AmigaGuide Help File

```
@database StarTrek.guide
@remark HELP FILE FOR STAR TREK VIDEO COLLECTION DATABASE
@author Randy C. Finch
@(c) "Copyright - 1993 RKA Productions"
@$VER: StarTrek.guide 1.0 (10/30/93)
@wordwrap
@font topaz.font 8
@index "StarTrek_MasterIndex"


@node "Main" "Star Trek Database General Info"
Star Trek Database General Info

This program handles a database specifically designed for cataloging
video tapes containing Star Trek television shows.  It has entry
fields for the type of show (Original, The Next Generation, or Deep
Space 9), the show's title, year, episode, tape number, show number,
and a description.  New entries can be made easily and old ones can
be deleted.  You can sort the database by tape number and show
number and print the database to a Hewlett-Packard LaserJet 4
printer in a useful format.  The data can be saved and loaded to
disk, also.

For an index of help topics, click on the Index button at the top
of this window.
@endnode


@node "StarTrek_MasterIndex" "Star Trek Database Master Index"
Star Trek Database Master Index

@{" General Info " link "Main"}

Fields:

@{" Show          " link "StarTrek_Show"}
@{" Title         " link "StarTrek_Title"}
@{" Year          " link "StarTrek_Year"}
@{" Episode #     " link "StarTrek_Episode"}
@{" Tape #        " link "StarTrek_TapeNum"}
@{" Show #        " link "StarTrek_ShowNum"}
@{" Description   " link "StarTrek_Description"}

Buttons:

@{" EditAdd       " link "StarTrek_EditAdd"}
@{" Prev          " link "StarTrek_Prev"}
@{" Next          " link "StarTrek_Next"}
@{" Del           " link "StarTrek_Del"}
@{" Sort          " link "StarTrek_Sort"}
@{" Print         " link "StarTrek_Print"}
@{" Load          " link "StarTrek_Load"}
@{" Save          " link "StarTrek_Save"}
@{" Help          " link "StarTrek_Help"}
@endnode
```

As told by AC Tech #3.4 and Amiga World Aug. '93...

The LANGUAGE For The Amiga!

One Amiga language has stood the test of time.

This new package represents the fourth major upgraded release of F-Basic since 1988. Packed with new features, 5.0 is the fastest and fullest yet. The power of C with the friendliness of BASIC. Compatibility with all Amiga platforms through the 4000...compiled assembly object code with incredible execution times... features from all modern languages, an AREXX port, PAL and ECS/AGA chip set support...Free technical support... This is the FAST one you've read so much about!

F-BASIC 5.0™

Supports DOS 1.3, 2.0, 2.1 and 3.0

F-BASIC 5.0™ System $99.95

Includes Compiler, Linker, Integrated Editor Environment, User's Manual, & Sample Programs Disk.

F-BASIC 5.0™ + SLDB System $159.95

As above with Complete Source Level DeBugger.

Available Only From: DELPHI NOETIC SYSTEMS, INC. **(605) 348-0791**

P.O. Box 7722 Rapid City, SD 57709-7722

Send Check or Money Order or Write For Info. Call With Credit Card or C.O.D.

Fax (605) 343-4728 Overseas Distributor Inquiries Welcome

```
@node "StarTrek_Show" "Star Trek Database: Show Field"
Star Trek Database: Show Field

This field allows you to input a three-letter code that represents
which Star Trek show is being referenced.  Currently there are only three
codes that make any sense.

   ORG = Original show with William Shatner, et. al.
   TNG = The Next Generation with Patrick Stewart, et. al.
   DS9 = Deep Space Nine with Avery Brooks, et. al.

Other codes may be added as new Star Trek series are produced.
@endnode


@node "StarTrek_Title" "Star Trek Database: Title Field"
Star Trek Database: Title Field

This field allows you to input the title of the Star Trek show.
The title is normally shown when the show returns from the opening
credits and commercials.
@endnode


@node "StarTrek_Year" "Star Trek Database: Year Field"
Star Trek Database: Year Field

This field allows you to input the year the show aired.  You may choose
to use the original year if you know it or the year in which you recorded
the show.

This field is a text field rather than an integer field because if you
do not know the exact year of the show, you may want to enter something
like <1989, Old, etc.
@endnode


@node "StarTrek_Episode" "Star Trek Database: Episode # Field"
Star Trek Database: Episode # Field

This field allows you to input the episode number of the show for the year
it was shown.  You may base this on the original year it was shown if you
know it.  Otherwise, you can use the year in which you recorded the show.
@endnode
```

```
@node "StarTrek_TapeNum" "Star Trek Database: Tape # Field"
Star Trek Database: Tape # Field

This field allows you to input a number for the tape on which this show was
recorded.  The tape number should be written on the tape label for easy
reference.
@endnode


@node "StarTrek_ShowNum" "Star Trek Database: Show # Field"
Star Trek Database: Show # Field

This field allows you to input a number representing the location of the
show on the selected tape number.  For example, if you use a 2-hour tape
in SLP mode, the show number can be 1 through 6 (assuming all shows are one
hour long).

You can only enter a number from 1 to 8.
@endnode


@node "StarTrek_Description" "Star Trek Database: Description Field"
Star Trek Database: Description Field

This field allows you to input a description of the show.  It can contain
any text you like.  You may find that you need to abbreviate some words to
prevent overrunning the field.
@endnode


@node "StarTrek_EditAdd" "Star Trek Database: Edit/Add Rollo Button"
Star Trek Database: Edit/Add Rollo Button

This button allows you to toggle between edit mode and add mode.

When you switch to edit mode, the first record of the database is
displayed.  You may edit any existing entries, but you cannot add new ones.

The @{" Prev          " link "StarTrek_Prev"} and @{" Next          " link
"StarTrek_Next"}
buttons can be used to step forward and backward through the database.
The current record number is shown in the window's title bar.

When you switch to add mode, some fields are cleared and all additional
input is added to the database.  The record will be added when you press
the RETURN key with the cursor in the Description field.  The Prev, Next,
Del, and Sort buttons are not functional in this mode.  The next record
to be added is shown in the window's title bar.
@endnode


@node "StarTrek_Prev" "Star Trek Database: <- Button"
Star Trek Database: <- Button

When this button is pressed, the previous record is displayed.  If the
first record is the current record, then the last record will be
displayed.

This button is not functional when in Add mode.
@endnode


@node "StarTrek_Next" "Star Trek Database: -> Button"
Star Trek Database: -> Button

When this button is pressed, the next record is displayed.  If the last
record is the current record, then the first record will be displayed.

This button is not functional when in Add mode.
@endnode


@node "StarTrek_Del" "Star Trek Database: Del Button"
Star Trek Database: Del Button

When this button is pressed, the currently displayed record is deleted.

This button is not functional when in Add mode.
@endnode


@node "StarTrek_Sort" "Star Trek Database: Sort Button"
Star Trek Database: Sort Button

When this button is pressed, the database will be sorted by tape number.
Within each tape number, the show number will be sorted.  A sort must be
performed before you print the database if you want the output to make
any sense.

This button is not functional when in Add mode.
@endnode


@node "StarTrek_Print" "Star Trek Database: Print Button"
Star Trek Database: Print Button

When this button is pressed, the database will be printed in a format such
that the for each tape number, the shows are listed by show number.  It
appear as follows:

Tape Tape#

ShowNum. Title1     Show  Year-Episode#  Description
           .
           .
           .

Eight tapes will be listed per page.  The output will currently only work
with a Hewlett-Packard LaserJet 4 (and perhaps other HP LaserJets).  You
must sort the database before printing if you want it to look right.
@endnode


@node "StarTrek_Load" "Star Trek Database: Load Button"
Star Trek Database: Load Button

When this button is pressed, a standard Amiga file requester is displayed.
You can then select the file you want to load and press the OK button.  You
can cancel the operation by pressing the Cancel button.
@endnode


@node "StarTrek_Save" "Star Trek Database: Save Button"
Star Trek Database: Save Button

When this button is pressed, a standard Amiga file requester is displayed.
You can then select the path and filename to which you want to save the
database and press the OK button.  You can cancel the operation by pressing
the Cancel button.
@endnode


@node "StarTrek_Help" "Star Trek Database: Help Buttons"
Star Trek Database: Help Buttons

The ? button:

This is the small button in the lower right hand corner of the screen.
When clicked on, it toggles on and off.  When it is on, you can click
on fields and buttons on the screen to obtain help.  To go back to
normal database entry mode simply turn the help button off.

The Star Trek button:

This is the image button at the top of the screen with the words Star Trek.
It can be clicked on at any time, whether the help button is on or off,
to obtain an index of help topics.

The Help key:

If the help key is pressed on the keyboard while no fields are selected,
then an index of help topics will be displayed.
@endnode
```

•AC•

STAR TREK is a Registered Trademark of Paramount Pictures.

Please Write to:
Randy Finch
c/o Amazing Computing
P.O. Box 2140
Fall River, MA 02722-2140

Accent on Multimedia

Part II: Branching Storyboards

by R. Shamms Mortier

As most of you know, a storyboard is one of the most important parts of an animation. It shows you where the keyframes are located—those frames that represent the major focal points in a story or animated character movement. A storyboard is a way to communicate a story visually, though notes indicating the narration, music, sound effects, and timing are indicated as well, adjacent to the accompanying frames.

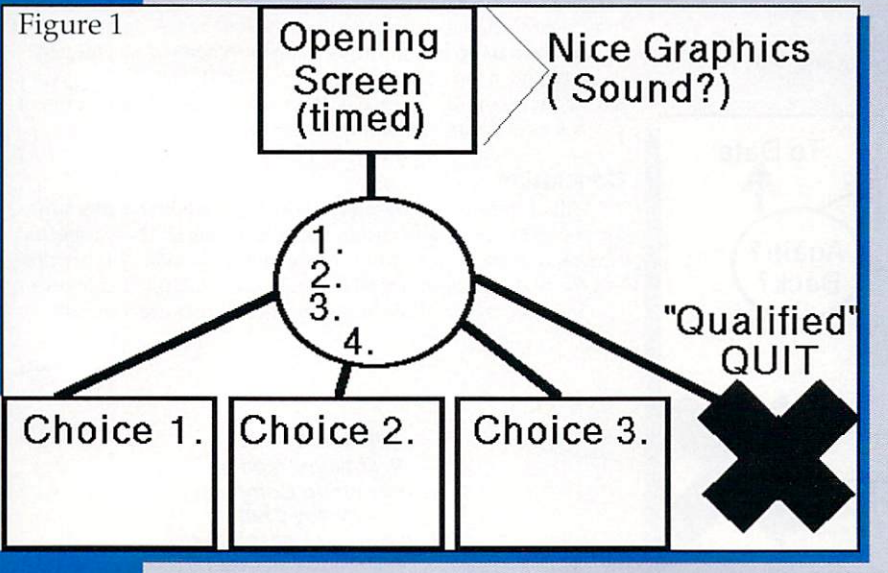
In this series of articles, we are focusing upon a special class of programs and processes called multimedia. What this usually indicates is an interactive environment, one that invites you to change the course of the action that is progressing on the screen. Computer gamers are most familiar with this concept, as are those individuals who interact with educational software on systems like Commodore's new CD^{32} machine. In fact, the Amiga itself is a perfect example of an interactive multimedia world in which you interact by moving and clicking the mouse to paint, play music, write with words, and do a thousand other things. Whether you realize it or not, your experience with your Amiga has already prepared you for other discoveries that the land of multimedia has to offer.

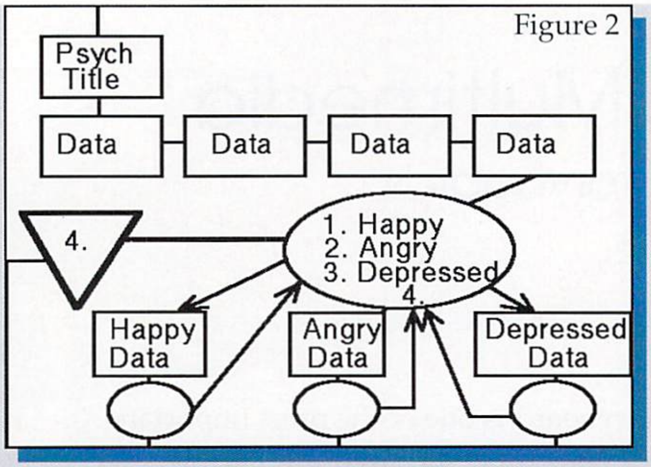
Interactive multimedia programs are designed so that by answering certain questions or clicking on areas of the screen, you can trigger another screen, an animation, or a sound into action. This was the dream of those brave adventurers who 20 years ago designed CAL systems, Computer Assisted Learning modules. Someone has to storyboard all of these scripts before the associated action can take place, and if you want to design an interactive game or learning module, that someone should be you.

Even in the most graphically-oriented Amiga multimedia software environments (like *HELM*, *CanDo*, and AmigaVision,) some attention to planning is vital. The more thought you give to the beginning of the process, the less lost you'll feel when you're in the midst of it. All of the Amiga multimedia software has the ability to save and load scripts, and in some cases to be open to ARexx scripting alternatives as well. No matter how you cut it, some attention to programming is necessary if you are going to design an interactive participatory module.

The idea of branching programming comes from real life; the fact that at various decision points in our lives, major choices that effect a change in direction are offered. These decision points, or cross-roads, are represented as multidimensional keyframes in a multimedia branching program and require that the user of the program make a decision or answer a question in order to initiate a new action and direction. The old way of teaching a person to program in any language was

Figure 1





to make sure they understood certain terms first, and then to gradually expand upon the programming vocabulary to address more and more complex alternatives. The Amiga is our platform of choice because of its visual elements, and the fact that most of us who are addicted to its use are visual thinkers. Because of this, it is only natural that we learn to program in a visual environment, especially when dealing with multimedia design.

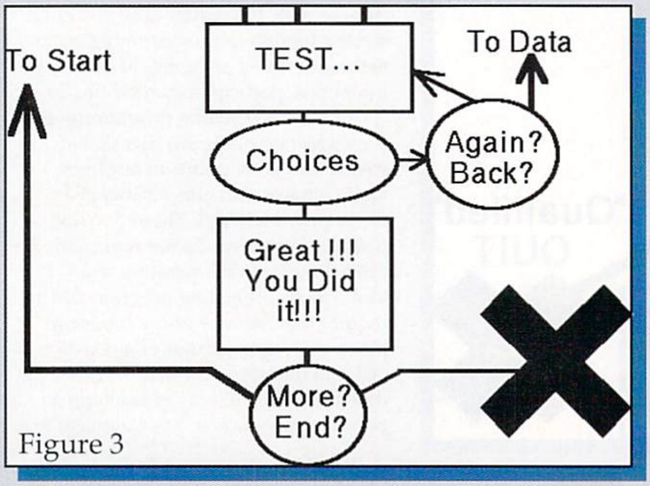
Visual programming demands the use of symbols. There are standard symbols that programmers in, let's say, BASIC, use to indicate the movement and structure of a program. I'm going to suggest that you begin this process by narrowing your symbolic choices to the following graphics with their associated meanings:

Rectangles: Use for information screens
Circles/Ovals: Use Crossroad decision points
Triangles: GOTO symbols that send you to another point on a path out of the consecutive ordering of the linear path.
X sign: Quit/End

If you follow along in a step-by-step fashion, you will be able to think in a visual programming language that will prepare you to work in any Amiga multimedia programming environment, and may even ignite your hidden passion for programming in general.

Generative Idea

What we will aim to create is an interactive multimedia design for an educational journey that teaches about dragons. The first thing to do is to decide what it is you want people to know as they move along the learning path. It's also good to remember that statistics indicate that repetition is the best way to enhance memory, so that repeating what the learning emphasizes more than once along the way is beneficial to learning and remembering. Now as far as dragons are concerned, we might want to separate our branching program into three unique modules: The History of Dragons, The Physiology of Dragons, and the Psychology of Dragons. Preceding this, we might want to ask a user which of the three paths he wants to access.



The First Step

Here, I have represented a simple way to visually design the first part of the branching structure of our program (Figure 1). As an opener, I've indicated that a colorful graphic would be appropriate, and it even might be accompanied by a sound track. Depending upon the Amiga software we use to create this presentation, it could appear on-screen with an animated wipe, and exit in the same manner. As far as the exit is concerned, I would probably time it out rather than ask the user to click a mouse, but that would be another choice to make.

The Circle is our first branch, and it lists the choices that the user is to make as far as deciding upon the next step. The first three choices indicate the three possibilities mentioned earlier, while the X represents the choice to end the session before it even begins. It's always best to ask the user at this point if he really wants to quit—another possible branch where a yes would indicate an immediate exit, maybe with a good-bye graphic or with a no taking him back to the initial four-choice branching screen.

The Next Step

Now because this is an article and not a book, I'm going to have to abbreviate the development of this idea somewhat. Let's say, then, that you chose Dragon Psychology (Figure 2). We would then indicate another data screen on the path that would be the title with maybe more sound and that would be followed (click or timed) by an information screen(s) concerning all that we know about the general psychology of the dragon. Remember that data does not have to mean words alone, but graphics and possibly animations as well. After that we would go to another branching screen. This one might give us three more choices, asking if we want to learn more about what causes a Dragon to be happy, angry, or depressed. As you can see, there is another branching oval under each choice, so we can learn about all three conditions in turn, retrace our learning about each (an internal loop), or move on after learning about one or two conditions. There is also another possibility represented by the number 4, and that is to skip ahead (GOTO) without stopping to learn anything here.

The Last Step

Here's that magic moment, time to test what you know. The purpose of testing is learning, not punishment, so we've included another branch that allows us either to take the test again, or to go back to the data so we can study it again. When we answer it all correctly, we go to a special plaudits screen (Figure 3). It's great to have your learning recognized. From there, we can either quit, or go back to make another choice at the top.

Conclusion

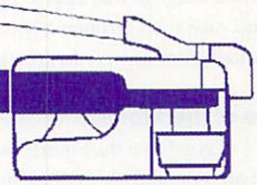
All of this may seem rather simple, but when it comes time for you to apply your branching programming skills in a specific Amiga multimedia program—as we will do in following articles—this method, or a variation of it, can be the vital link that allows you to master some of the best multimedia software around.

•AC•

Please Write to:
R. Shamms Mortier
c/o Amazing Computing
P.O. Box 2140
Fall River, MA 02722-2140

on line

by Rob Hays



amiga telecommunications

In the December issue we took a quick look at GEnie, the General Electric Network for Information Exchange. This month we will examine the Amiga section on GEnie more closely.

The Starship, at page 555, is divided into several sections, including the Bulletin Board, Software Libraries, Real-Time Conferences, and the Pro/Am section, which specializes in programming information. In addition, there are sections devoted to the Amiga version of *Aladdin*, as well as news and help topics.

The Pro/Am section further divides into its own Software Libraries, Conference, and Bulletin Board areas. This is where to go if you are interested in learning programming tips in every language from assembler to BASIC. The libraries hold files such as the programmer's utilities *Enforcer* and *Mungwall*, which protect memory areas from being overwritten by wayward programs during development. You can even find entire programming languages there.

The Real-Time Conference areas are like giant meeting halls, where many users can congregate at the same time. Usually these are used by small numbers discussing a topic of common interest. Occasionally special events are held, such as the recent conference held by two Commodore insiders using the nicknames "Deep Modem" and "Deep Thought." During these conferences, a Sysop, or System Operator, one of the people involved in the daily operation of the BBS, acts as a moderator, and anyone can ask questions directly of the guest.

The Software Libraries contain thousands of programs for downloading, including the Fred Fish Collection. There are so many programs that the Sysops periodically go through and make compressed listings so you can get a listing of files in a few quick downloads. Search functions allow you to find a specific program by program name, author's name, or age of the file. Of course you can also search for all files added within a specific time frame.

The Bulletin Board area contains 32 major categories of message topics, with each category being broken down into individual topics. For instance, Category 10 concerns Telecommunications and has, as of December 1993, 31 topics, ranging from general questions to problems or questions with specific modems or terminal programs. The Bulletin Board is the place to go if you are having problems, or need information about a product from those already using it.

In fact, this is where I went when I received a letter from Charles Compton in Durham, NC. Mr. Compton wrote concerning problems finding fax software to use with his Zoom faxmodem. The first thing I did was check the topic listing for Category 10 and found that Topic 25 was devoted to questions concerning this modem. I used the capture buffer feature of my terminal program to store the old messages in the topic as they scrolled past. Later I read through these to see if anyone else had already asked the same question. Not finding a previous question that duplicated Mr. Compton's problem, I posted the problem in the topic. The next time I was on GEnie I checked the topic and had the answer. According to another user of this modem, *GPFax* software works properly, although there appears to be several different versions of this software. Going a little further, I did a search of the software libraries using a keyword "fax" and found several files that update older versions of this software to the most recent version. This is a prime example of the usefulness and power of telecommunications. By pooling our knowledge and experiences, we help each other and get answers to our problems quickly.

Remember that we are discussing only the Amiga sections of the telecommunication networks. The networks have much more that will be of interest to individual users, so don't be afraid to stir about and see what other areas are on your favorite board.

Oops!

In the January "Online," I quoted download times of 77 and 78 minutes at 2400bps for the files AGA_Icons.lha and Gigertetris.lha. Actual download times are closer to the 9 to 10 minute range at that speed. I had downloaded them at a higher baud rate, then erroneously calculated the time for 2400bps. I apologize for any confusion this caused.

File of the Month

If you have the SmartPort analog joystick adapter from IDD, but are not on their mailing list, download file #21694 called SmartPort_Upgrade2.3.lha. This 155,392 byte file contains patches that add or enhance analog joystick support to six different flight simulators. If you own *Flight Simulator II, F-15 Strike Eagle II, GunShip 2000, Knights of the Sky, Birds of Prey,* or *FA-18 Interceptor,* and the SmartPort, get this file. At 2400bps it will take about 13 minutes.

That's all for now. Remember, I can be reached electronically on GEnie as R.HAYS5, and CompuServe as 72764,2066. If you need a personal response to a question, and can't use either of the above e-mail addresses, please write to me care of this magazine. Please enclose a SASE if you need a personal reply. See you online!

•AC•

Please Write to:
Rob Hays
c/o Amazing Computing
P.O. Box 2140
Fall River, MA 02722-2140

FOCUSING ON PRODUCTIVITY

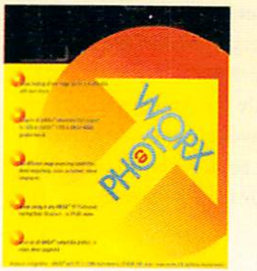
To do a proper job, you need the right tools. These Amiga products will improve your productivity, enhance the quality of your work, and will give you access to new resources. Each and every one of these product have been designed to assist you in every aspect of production. To find out more about these products, call (217) 352 0061 or visit a dealer near you.

SPECTRONICS
INTERNATIONAL
USA

34 E. Main Str.#23 - Champaign, IL 61820
Phone : (217) 352-0061 - Fax : (217) 352 0063
It is aknowledged that all trademarks are the property of their respective owners.

PHOTOWORX

Allows reading of Photo-CD's on Amigas™ equipped with a XA-compatible CD-ROM drive. PhotoworX displays all photos on screen on a "contact-sheet" and comes standard with powerful integrated image-processing tools. A free sample Photo-CD is also included.



AMIGA LINK

Network up to 20 Amigas™ over a distance of up to 300 feet. Every Amiga™, from A500 and CDTV to A4000 can be used. This low cost network can be installed and configured in minutes

Features

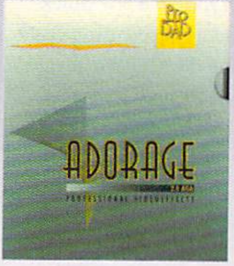
- *Uses external floppy drive port. No installation required.*
- *450000 Bits per second*
- *Works with WB 1.3 and higher*

ADORAGE

Whether intended for presentations, info-systems or video-footage, there is no effects-generation tools that surpasses Adorage in versatility or results. Adorage enables dazzling 2D and 3D transitions between scenes and images in near real time.

Features

- *Infinite effects through definable parameters and effect combinations*
- *Full AGA support including 256 colors and HAM-8*
- *Creates Super Smooth Animations (SSA) or IFF animations*

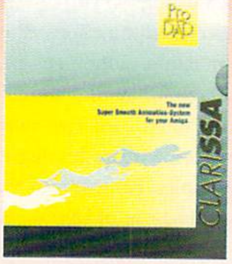


CLARISSA

ClariSSA is essential for anyone creating or playing back animations on the Amiga™. The power of ClariSSA is that it enables the generation of Super Smooth Animations (SSA) from existing animations created with other Amiga™ programs, vastly improving playback.

Features

- *Unlimited color palette. You can have a different palette for each frame of the animation.*
- *Full AGA support including 256 colors and HAM-8*
- *Full ARexx Support*
- *Mark, cut, copy and paste single frames or sections*
- *Integrated screen grabber*
- *Convert Anim5 animations to SSA for more natural playback*



Circle 126 on Reader Service card.

OWN AN AMIGA 1200 TWICE THE SPEED OF AN A4000/030 OR A3000 SYSTEM! GET TRUE 32-bit WIDE, ZERO WAIT-STATE FASTRAM ACCESS!

PURCHASE THE MICROBOTICS M1230XA CARD FOR THE AMIGA 1200

AMIGA

A4000 Computer	CALL
A1200 Computer	399
w/85MB HD Installed	624
w/130MB HD Installed	724
w/235MB HD Installed	858
A600 Computer	175
1942 Multisync Monitor	**389**
1084S Monitor	229
A2630 Accelerator w/4MB	449
A520 Video Adapter	34
A2088 XT Bridgecard	69
A2091 Hard Drive & Ram Controller w/120MB HD	**269**
A2091 HD Controller	69
2 MB Ram For 2091	80
Janus 2.1 Update	35
A2000/3000 Disk Drives	69.95
A500 Int. Disk Drives	49.95
A600/1200 Keyboards	29.95
A2000/3000 Keyboard	59.95
A2000/3000 Power Supply	109
External case PS & Cables	125
2320 Flicker Fixer	129

REMOVABLE A1200/600 HD SYSTEM

- External Box w/Power & Cabling
- QUANTUM 245 HD 2Yr Warranty
- 256K Cache Ram
- As Fast As 7 (SEVEN) ms
- Cable Select Autoconfiguration
- Take Off One System And Plug Into Another W/O Any Hassles

Only $339

AMIGA CUSTOM CHIPS

Kickstart 2.1 Update Kit	77.95
2.04 Rom (HiD Drives)	33.95
Kickstart 1.3	21.95
1MB Agnus (8372A)	37.50
2MB Agnus (8372B)	79.95
Super Denise (8373)	28.95
Paula (8364) Or Denise	18.95
CIA (8520)	9.50
Gary (5719)	13.95
2620/2630 Upgrade Kit	35
2091 Upgrade Eproms 7.+	35
Superbuster (A3000)	99
Ramsey (A3000)	99
Fat Gary (A3000)	49
Super Dmac (A3000)	99
Amber (A3000)	79
A3000 Daugterboard	99
A3000 Motherboard	199
- comes with 1 mb ram	
- 25mhz CPU w/MMU	
- All Other Sockets Empty	

VIDEO

DPS Personal TBC III	675
DPS Personal TBC IV	799
DPS Personal Animation	1599
DPS Personal Component	399
DPS Personal V Scope	699
Kitchen Sync	1199
Opal Vision 2.0	645
DCTV-NTSC	274
Retina w/2MB	479
Retina w/4MB	549
Vlab-24Bit Digitizer	379
Scala 210MM	299
Deluxe Paint IV AGA	119
Morph Plus	149
Art Department Pro	159
Pixel 3D Professional	149
Video Director	129
Caligari 24	239
Aladdin 4D	249
Video Toaster 3.0 Upgrade	649
Video Toaster 4000	1899
Montage	Call

MICROBOTICS

M1230XA ACCELERATOR

68030 RC25Mhz CPU w/MMU & clock **Only $249**

50 MHZ VERSION FOR ONLY 349

MBX 1200z COMBO BOARD

68881 RC20Mhz FPU & with clock

NOW ONLY $125

Call For All Other Custom Configurations Available

VXL * 30 ACCELERATOR

68030 & 32 Bit Wide Ram For The A500/2000!

VXL 30 25 & MMU Mhz $185 w/68882 25FPU$235 40EC Mhz $275 w/FPU $390 33 Mhz & MMU $299 w/FPU $385

VXL 32 RAM 2MB $219 8MB $589

UNMATCHED SYQUEST PRICES

44MB DRIVE (SQ555)	$239
88MB (SQ5110C) (R&W44)	$349
105MB IDE	$449
105MB SCSI	$525
44MB Cartriges	$ 65
105MB Cartriges	$ 90
External Versions Add	$ 99

AMIGA 4000 & 3000 OWNERS CRUSH THE 16 MEG BARRIER

- Add up to 128 MB of ram of contiguous memory
- Four simm sockets using industry standard simms
- Create and run animation from ram on the VT4000
- True Zorro III 32 bit memory board
- Play back over 50 seconds of real-time animation in Hi-Res
- Record your animation at a fraction of the cost!

DKB's 3128 is Only $275

GREAT VALLEY PRODUCTS

A500-HD8+0MB/52Q	275
A500-HD8+0MB/85Q	309
A500-HD8+0MB/120M	355
A500-HD8+0MB/245Q	415
A530-HD8+1/120M	**CALL**
A530-HD8+1/245Q	CALL
A530-HD8+2/120M	**CALL**
A2000-HC8+0MB	149
SIMM32/1MB/60ns	69.95
SIMM32/4MB/60ns	**CALL**
1MB SIMM GForce A3000	179
G-Lock Genlock	385
A2000-IV24 Adapter	55
VIU-CT	499

A1230 Turbo+ 40/40/4	$549.00
A1200 SCSI / RAM+0K	$209.00
w/33mhz&4MB Ram	$449.00

*** A530 Special ***

We Won't Be Beat!

GForce Accelerators w/ 68030,68882, 60ns RAM, SCSI Controller, RAM Card in One

40Mhz/4MB	609
50Mhz/4MB	795
68040 33Mhz A2000/4MB	1055

PC286 Module 16Mhz	59
Tahiti-II 1GB (35ms)	2499
Tahiti-II 1GB Cartridge	249
IV 24 Impact Vis. CT	1215
IV 24 Impact Vision 2.0	1049
IV 24 2.0 Upgrade	129
68882 40Mhz FPU PLCC	129
FaaastROM Kit (For HDs)	39
Cinemorph Software	55
Phonepak VFX 2.0	289
DSS8+ Sound Sampler	89
I/O Extender (2SerialPort)	99
Image F/X	199
Image F/X Upgrade	29

ICD

AdIDE 40 MB HD system for Amiga 500 System	220
AdIDE 60 MB HD System for Amiga 500 System	260
Flicker Free Video II	228

DKB

Insider II w/1.5M RAM	180
2632 w/4Megabytes	349
MegAChip 2000/500 w/2MB Agnus	179
Multi-Start 2 Rev 6A	29
KwikStart II for A1000	69
SecurKey Security Board	99
BattDisk battery backed static RAM disk	199

IVS

Grand Slam/500	229/287
Trumpcard Pro/500	139/225
Trumpcard 500 Pro	225
Trumpcard 500 Plus	149
Trumpcard 500 AT	164
Sourcer Switching Power Supply	99
Moviemaker	799

AUDIO

Sunrise Industries

AD516 Digitizer (16Bit)	1189
AD1012 Digitizer (12Bit)	479

EXPANSION SYSTEMS

Baseboard 601C	69
Dataflyer XDS 0MB	75
w/120Maxtor	259
w/245Quantum	339
Baseboard 1200C	25
Baseboard 500 0K	85
Xramboard w/0K	75
Dataflyer Ramcard w 2mb	149
500 SCSI or IDE	125
1000 SCSI or IDE	135
2000 SCSI or IDE	75
500 Express SCSI	165
500 Express IDE	155
500 Express SCSI&IDE	189
500 SCSI&IDE	149
1000 SCSI&IDE	169
2000 SCSI&IDE	95

CSA

DERRINGER 25/25/1 w/MMU,FPU&RAM	399
DERRINGER 50/4 w/MMU,&4MB RAM	599
Rocket Launcher 50/50 w/MMU Makes The CBM 2630 Or GVP Combo 25 run at 50 Mhz w/MMU & FPU (68882RC50)	499

Micro R&D

2000 Bigfoot Power Supply	159
500 Bigfoot Power Supply	89
1200 Bigfoot Power Supply	99
Slingshot A500 (1A2000Slot)	39
Slingshot Pro A500 (Gives An A2000 Slot w/Passthru	69

Hewlett Packard Printers

HP 4SI	**3195**
HP 4M	**1975**
HP 4	**1459**
HP 4L	**675**
HP 4ML	**1079**
HP IIIP	**899**
DJ1200C	**1459**
DJ500	**319**
DJ500C	**419**
DJ550C	**619**
DJPortable	**399**
Scanjet IIP	**969**
Scanjet IIC	**1320**

3.5" HARD DRIVES

Warranties
Quantum=2 Years
Maxtor=1 Year

Maxtor 120 LPS SCSI/IDE	**199**
Maxtor 170 LPS IDE	**229**
Maxtor 213 LPS SCSI/IDE	**249**
Maxtor 245 LPS SCSI/IDE	**275**
Maxtor 345 IDE	**365**
Quantum 52 (Low Profile)	**139**
Quantum 105 LPS	**185**
Quantum 127 ELS	**199**
Quantum 245 LPS SCSI-2	**275**
Quantum 525 LPS SCSI-2	**649**
Quantum 1.2 Gig 5 YR	**1199**
Toshiba 1.2 Gig 5 YR	**1199**

2.5" A1200/600 Hard Drives

85M Conner / Seagate	$215
130M Seagate / Maxtor	$309
235MB Seagate	$439

MEMORY CHIPS

All Speeds Available

1x8 100-60ns SIMMS	32+
4x8 80-60ns SIMMS	129+
1x4 80-60ns Static ZIP	16+
1x4 80-60ns Page ZIP	17+
1x4 80-50ns Page DIP	18+
1x1 120-70ns DIP	5+
256X4 120-60ns DIP	5+
256X4 120-60ns ZIP	5+
256x32 (1MB Simm 72P)	29+
512x32 (2MB Simm 72P)	75+
1x32 Simms	139+
2x32 Simms	299+
4x32 Simms	599+
8x32 Simms	1800+
PCMCIA Ram Card 2M	119+
PCMCIA Ram Card 4M	229+

Ram Changes For Better Or Worse Please Call 1st

MATH CHIPS, CPU's &FPU's

68030-RC-50 w/MMU	149.00
68882-RC-50 (PGA)	145.00
68030-RC-33 w/MMU	129.00
68882-RC-33 (PGA)	95.00
68030-RC-25 w/MMU	99.00
68882-RC-25 (PGA)	75.00
68030-FN-PLCC (Call)	CALL
68882-FN-PLCC (Call)	CALL
80387-25SX (Bridges)	69.95
Crystal Oscillators (All)	10.00

LASER PRINTER MEMORY

HP II, IID, IIP, III, IIID, IIP AND ALL PLUS SERIES

Board with 2MB	89.00
Board with 4MB	145.00
Deskjet 256K Upgrade	55
HP 4 (4 Meg)	149
HP 4 (8 Meg)	295

ACCESORIES/MISC.

PowerPlayers Joystick	6.49
SupraTurbo 28Mhz	149
Safeskin Protectors	15.00
Xtractor+ Chip Puller	9.95
Kool-It Cooling kit A500	39.95
Qwika Switcha 4 socketed ROM selector	39.95
Power Connectors	**CALL**
SCSI HD Cables	**CALL**

386 Bridgecard Owners
80387SX25 Co Processor
Speeds Up Performance
Only $69.95

De Vine COMPUTER SALES

18 Wellington Drive
Newark, DE. 19702
(302) 836-6174 ORDERS LINE
(302) 836-4145 PRODUCT Info/Tech
(302) 836-8829 Fax 24 HOURS

Please Understand Our Policies

VISA / MASTER Card Accepted. Prices And Specifications Are Subject To Change Without Notice! 15% Restocking Fee On All Returns. Defective Merchandise Will Be Replaced With Same Item. Call 302.836.4145 For Approval RMA# Before Returning Merchandise Merchandise. No Returns After 10 Days From Delivery Date. Not Responsible For Incompatibility Of Products Shipping And Handling For Chips Is $5 COD Fee $6 Personal Checks Require 10 Working Days To Clear. Call For Actual Shipping Prices On All Other Items. Ram Prices Change Daily

Circle 110 on Reader Service card.

Amiga Stars at Medical Convention

by Dr. Michael Tobin, M.D., Ph.D.

Official Recognition for the Amiga

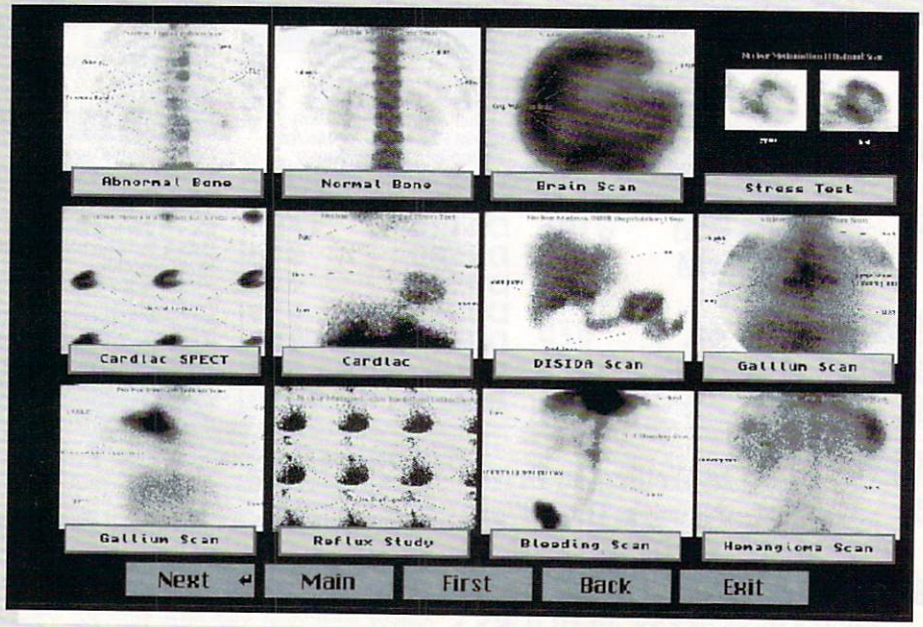
Attendees at the Fortieth Annual Meeting of the Society of Nuclear Medicine in Toronto this past June were treated to an Amiga-based multimedia exhibit that many termed unique. Titled "Patient Guide to Nuclear Medicine," it used two Amiga 3000s to win second prize in the Scientific Exhibits category. In so doing, it bested 15 other computer exhibits as well as many other presentations including those using booths, posterboards, and viewboxes.

This exhibit followed in the successful footsteps of last year's presentation titled "Renal Nuclear Medicine Teaching File," a physician education program now on an Amiga display at the Lister Hill National Center for Biomedical Communications, National Library of Medicine, Bethesda, Maryland.

The Annual Meeting of the Society of Nuclear Medicine

Nuclear medicine is a branch of medicine dealing primarily with the diagnosis of human illness using small amounts of radioactive material. This year's Annual Meeting of the Society of Nuclear Medicine was held in Toronto in order to emphasize its international membership as well as its whole-world outlook.

Those who feel that they have done something special during the year submit a proposal several months in advance requesting time to present their research either as a lecture or as an exhibit. Because there are always many more proposals than time and space allow, committees are formed to judge the entrees. It was therefore an honor to have my Amiga-based patient education module selected for presentation in this highly competitive process.



Multimedia programs allow the programmer to place active areas on the screen which, when mouse-selected by the user, carry out one or more commands chosen by the programmer.

Patient Education

Over the years, I have been concerned about the many patients who arrive in the nuclear medicine imaging area without a clear idea of why they are there and even less of an idea of what will happen to them.

Initially, I thought the answer was to distribute leaflets, or even a book made out of such leaflets, describing the various nuclear medicine imaging procedures and the reasons for performing them. Three years ago, I used my A2000 and *ProWrite* software to generate such sheets and even sought a publisher for them. I was told that instructional pamphlets were already in existence but judged by many to be ineffective because patients threw them away.

Discouraged, I discontinued work on the project but never gave up on the idea. I don't remember exactly how it happened but one day I woke up and knew that an interactive multimedia presentation on the Amiga was the best approach.

Interactive Multimedia

Interactive multimedia is such an abused term that I feel impelled to explain it. Multimedia programs allow the programmer to place active areas on the screen which, when mouse-selected by the user, carry out one or more commands chosen by the programmer. The active area can be a familiar-looking solid button, an image, text, or even a blank area or the screen. An active area need not even be visible to the user!

Whenever the program detects a user mouse-event in an active area, it executes one or more commands. The user must interact with the application for something to happen. Perhaps an image will be displayed. Perhaps digitized speech or music will be played. What happens depends on what the programmer has chosen.

Selecting an Authoring Program

I spent many long hours thinking about what the educational module should look like. I wanted to include a video about nuclear medicine and somehow combine it on the Amiga with images and text about the various imaging procedures. I still wanted to provide instructional printouts, which I now felt would more likely be read and saved by the patient. Everything was to be under user control. But which authoring program?

HyperBook

First, I looked at *HyperBook*. I had already used HyperBook for my physician education module Renal Nuclear Medicine Teaching File, and was, therefore, very familiar with its use. Unfortunately, HyperBook has not been updated since its release in 1990, although there have been some bug fixes. HyperBook not only fails to take advantage of the AGA graphics capabilities of the A1200 and 4000, but also has difficulties, such as being unable to crop pictures loaded into certain A1200 video modes. In the absence of any intended upgrade, I was forced, with great reluctance, to pass by my previous favorite.

CanDo

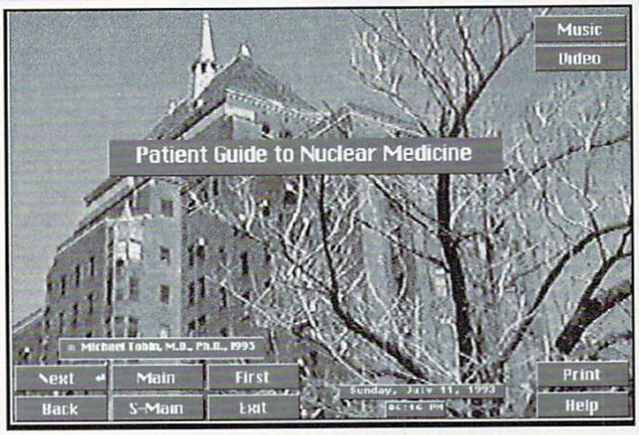
Many impressive applications have been generated by *CanDo*. I had previously used this program in a limited way and was grateful for the fine instruction manual and the helpful technical support the company provides. However, I found the program interface awkward and was frustrated by the amount of mouse clicking required even to do little things, such as moving objects around the screen. It also seemed to me that except for very straightforward applications, I had to get involved with CanDo's programming language more than I wanted to. Although it wasn't my first choice, I felt that if push came to shove, I could get a quality product from CanDo.

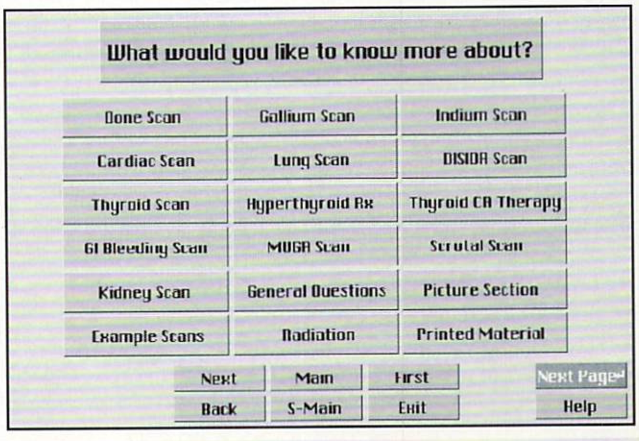
AmigaVision Professional

AmigaVision Professional was another option. What a pleasure to use a program that does just what it says it will do and not crash in the process! Yet, I chose not to use it. AmigaVision, unlike the other software packages discussed here, uses icons to perform programming. This approach is supposed to make it easier for the non-programmer to create multimedia exhibits. Perhaps it does. However, all those icons began to confuse me, even when grouped together to decrease their visual number. Also, whenever I created a control button on a screen, I had to return to the icon flow sheet to give it an action. I found this very distracting. Although I liked many of the program's features such as control over laser disk input, I knew that this program was not what I had in mind for my particular application.

Helm

Then along came *Helm*. I read a small news item about it in an Amiga magazine and decided to order it. I liked it immediately. It was easy to use and had many thoughtful features, including hypertext. Like CanDo, it had a programming language, but you could do a lot without writing scripts. Moving objects around was painless and the interface to the program was less awkward. Unlike AmigaVision, actions could be assigned to control buttons without leaving the page they were to be placed on. It had direct support for the GVP IV24 board and sported a paint program for use on image fields.

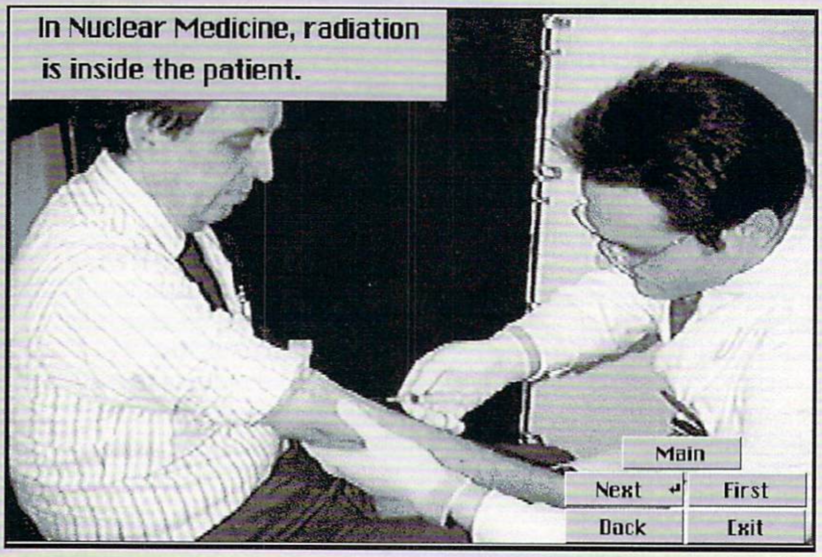




Eagle Tree provided extensive tech support and corrected the few problems that one can expect with any new program. About two months before the meeting, I made the decision—I would go with Helm.

The Hardware

At the meeting itself, I had two A3000s and two Commodore 1950 monitors, both graciously lent by Commodore, Ltd. of Canada. Everything else was my own equipment, which included two GVP IV24 boards, two VCR decks, two AirLink infrared controllers (that plug into the joystick port of the Amiga and allow ARexx control of the VCRs), a Xetec CD-ROM, a DPS TBC II time-base corrector, and five pairs of speakers.



In Nuclear Medicine, radiation is inside the patient.

The Application

My multimedia application has several key pages, only two of which I will describe here. The first is the opening page.

Page One

The background for this page was an image of the Kings County Hospital, Brooklyn, New York, captured first as an analog image by my Canon Xapshot camera and then digitized from the video out (of the Xapshot) by my GVP IV24. On this page are several active areas, or "buttons."

When mouse-selected, a very important button named Video enables the user to see a VCR tape I made called "Nuclear Medicine—Questions and Answers." The video appears in a small area of the Amiga screen. What makes this possible is the GVP IV24 picture-in-picture (PIP) facility that allows video to be played right on the Amiga screen. To take advantage of this facility, I wrote a little ARexx script that opens a GVP IV24 PIP window, activates the AirLink controller, which then sends out a "play" pulse that, in turn, starts the Toshiba VCR and plays the tape.

When the user elects to "stop" the video, another ARexx script runs, closes the PIP window, rewinds the tape, and then deactivates the AirLink.

There are other buttons including one named Music, which allows the user to play music from an audio CD in the Xetec CD-ROM. Another, named Help, lets the user hear me explain how to use the program. Still another allows the user to go to the main selection page.

The Main Selection Page

The main selection page has many buttons, each one directing the user to questions and answers about specific procedures in nuclear medicine. Each subtopic contains questions, and each question is an active area, which when selected, displays an answer in a text field. The user can print out instructions for each imaging procedure.

The user can also choose to see digitized images of the nuclear medicine department and patients having scans. Another choice is to see examples of the various scans and hear a voice-over explanation using layman terminology.

Reception to the Amiga and Its Application

I estimate that 12,000 to 15,000 people including physicians, technologists, and exhibitors attended the Fortieth Annual Meeting of the Society of Nuclear Medicine in Toronto. Hundreds of people were able to sit down with the Amiga and experience it first hand. Most would never have had the opportunity to know about this fine machine and its excellent third-party support. In short, they liked what they saw. Almost all felt that the "Patient Guide to Nuclear Medicine" should be a commercial product. The exhibit reflected well both on the Amiga and my own efforts. I could hardly have asked for more.

Final Impressions

Much has happened since my successful exhibit in Toronto. First, I have decided to make my teaching applications more accessible and have begun to look for a distributor.

Also, although I have upgraded my A3000 with a Retina display board and a Vlab digitizer and still use it to make slides for lectures and digitize images, I now use my A1200 to make my final product and give presentations. AGA graphics are such an advancement that I cannot imagine doing anything that does not include them.

Multimedia authoring systems continue to be a strong suit for the Amiga. Helm has become a robust, powerful, but still easy-to-use program with new features being added all the time. It remains my application interface of choice.

The Commodore Amiga, when combined with appropriate authoring software, is an impressive vehicle for interactive multimedia education. While computer programs are no substitute for caring physicians, they can make important information readily accessible to those people who want to take an active role in their own health care.

•AC•

Please Write to:
Dr. Michael Tobin
c/o Amazing Computing
P.O. Box 2140
Fall River, MA 02722-2140

Punctuating Your Presentations with DCTV

by John Steiner

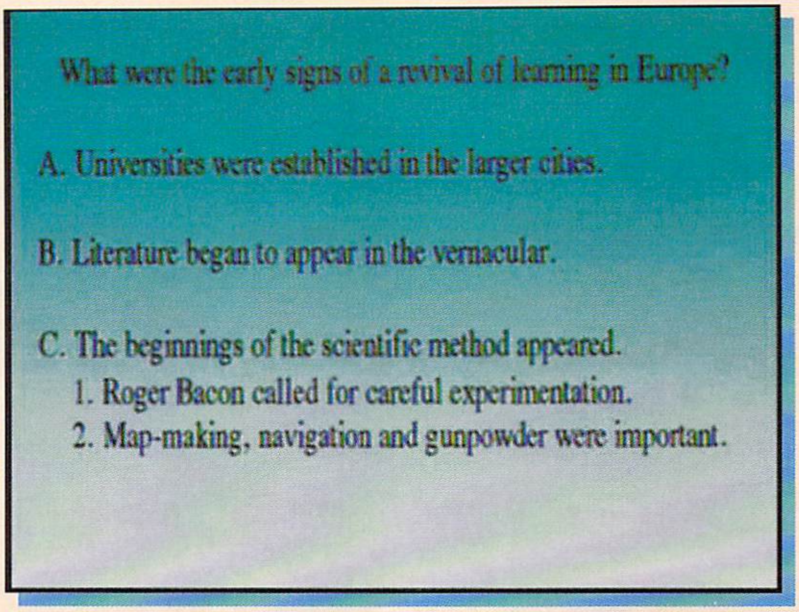
I've been a secondary school teacher of electronics and computer science for many years, and I recently completed the process of becoming certified in social studies. The major change in subject area meant that I would need to complete a student teaching assignment in social studies. One of my assignments included a lecture on the Renaissance, and I wanted to punctuate that lecture with images of important individuals and some examples of art and architecture of the period. There is a wealth of visual materials on the Renaissance, and I decided that this was the project that would allow me to see what DCTV could do. I called upon a friend, Stanley Wright, to lend me his DCTV unit for the project. He graciously gave up his unit and I began working on the project.

My first goal was to organize my presentation, and *WordPerfect*'s outline feature helped me quickly plan my lecture. After I printed the first draft, I went through it with a marker and noted possible items for illustration. From this I created a list of images that I wanted to use, as well as identified items of importance that I wanted students to note. These items consisted of the major points of the presentation that students needed to remember.

I visited our school district IMS (instructional media center) and checked out several videotapes and a videodisk that had examples from the Renaissance period. As I found items I felt were appropriate, I noted the source and location on the videotape so that I could find each one again as needed. In one case, the only image I could find was in a book on the Renaissance. You may be wondering about the legalities of capturing images from books, and commercial videotapes and discs for use in video presentations. The people at the media center wondered about that also, and when they found out my plans, they weren't sure whether this was an acceptable practice. I ended up doing some research on copyright law, especially involving the fair use doctrine.

When I had finished finding graphic examples, I reserved a few megabytes of space on my hard disk, as I knew that this project would take a lot of space. As it turned out, the final presentation files took about 14MB. Then I went about learning how to use DCTV's video capture feature. Capturing the image from the book was easy, but time consuming as I didn't have a copy stand setup, and had to position the book in such a way as to keep the image flat, and simultaneously keep light from reflecting off the image and into the camera. The DCTV unit captured the videodisk images superbly. The still image from a videodisk is rock stable, and I simply substituted the video output from the videodisk player for the camcorder input. Capturing the image was a simple three-step process; I enabled DCTV's scan function, searched for the graphic frame I wanted, and clicked the mouse button to capture the image. Several DCTV owners warned me that getting satisfactory videotaped images into DCTV would be the most difficult task for me to accomplish. As it turned out, I was more than satisfied with the results, especially when I viewed the images from a typical classroom viewing distance.

To capture images from videotape with DCTV, you must have a VCR that is capable of very stable still image display as it takes up to 10 seconds to complete an image capture. That means you need a four-head VCR. I used a medium grade



What were the early signs of a revival of learning in Europe?

A. Universities were established in the larger cities.

B. Literature began to appear in the vernacular.

C. The beginnings of the scientific method appeared.
  1. Roger Bacon called for careful experimentation.
  2. Map-making, navigation and gunpowder were important.

➛

AMIGAMAN

Orders Only USA & Canada
1-800-258-0533

CUSTOMER SERVICE (412) 962-0533
CUSTOMER SERVICE HOURS
10 a.m. - 5 p.m. Monday thru Friday

INTERNATIONAL ORDER LINE
412-962-0567

FAX ORDERS:
1-412-962-0279

Free... Amiga stick-on Calendar with Order!

while supplies last

New! Primera Color Printer

Reviewed in Dec. issue of Amazing Computing

MORE COLORFUL
- High-resolution thermal transfer color printing.
- Primera's color is brighter, richer, sharper and more vibrant than other color printing technologies.

MORE EFFICIENT
- Prints up to four times faster than ink jet.
- Requires no drying time, unlike ink jet. Eliminates wrinkling and smearing.
- Easy to use with only two buttons: On/Off and On line.

SEE THE RESULTS FOR YOURSELF

SAMPLE PRINT- $5 (refunded on purchase) Send your Picture on an Amiga Disk & we will return to you a print of your picture.

SEND TO: PRIMERA OFFER- c/o Computer Basics, Inc. 1490 N. Hermitage Rd., Hermitage, PA 16148

$825

CD ROM HEADQUARTERS

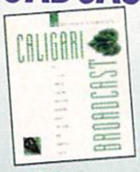
NEC MultiSpin 38 .... $389
NEC TripleSpeed 3XP $499
TEXEL 3028 internal $399

• All units are Amiga ready • SCSI interface required • Includes ASIM CD software •

CD SOFTWARE SELECTION:

TEXTURE CITY 100 Professional graphic backgrounds	$129	**GIFS GALORE** 5000 Color images in 42 categories	$19
AUDIO RESOURCE 1000 sound files, editors, mixers, generators	$19	**COLOR MAGIC** Drawings for business, education in 256 color 300dpi	$29
GRAPHICS RESOURCE 100's of graphic programs, animations & images	$19	**MEGA MEDIA** 1000+Audio and Graphic files for MM	$29
CONNOISSEUR ART COLLECTION 400 works of art, Classic Greek through 19th century	$31	**MULTIMEDIA** 1200 Audio, 1000 pictures and movies	$35
HEROIC AGE SPACE FLIGHT History of NASA and manned space flight	$19	**SUPER SPACE** 1000 pictures of and from Space NASA	$19
ULTIMATE MOD COLLECTION 1700 Mod files and computer generated music	$22	**GUTENBERG PROJECT** Famous Literary works and more	$29
AMINET 5000 files, Games, sound files, modem and much more	$19		

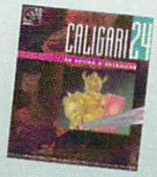
CALIGARI BROADCAST



Up to 8000 x 8000 pixel resolution. Direct support for single frame controllers. 3D Studio and Wavefront file compatible. Animatable, Deformations. IFF 24 output, and much more.

$299

CALIGARI 24



Modeler, renderer, and animator employing virtual reality technology. Full object editing functions including point edit, real-time feedback using a virtual reality inter-face, fast rendering of photorealistic images, AGA, IFF support for textures and output.

$139

FASTLANE

Fast SCSI-2 DMA Controller for AMIGA 4000

Up to 256Mb RAM

$595

BEETLE mice

320 DPI

COLORS (MOUSE - BUTTONS)
Red - Black Blue - Black
Black - Black LADY BUG
RED - WHITE - BLUE

$29

Legend Ball

- Ergonomic and Artistic Design
- Well-Structured ball cavity design, giving smooth rolling & precise control
- Stream-lined buttons give more comfortable clicks

Track ball control for those who never liked track balls before

$49 All New!

XL DRIVE - HIGH DENSITY

High Density External Drive for any Amiga • Formats 1.76MB with standard HD Disks • Compatible for PC Disks • Requires Work Bench 2.1 or above

$179

OpalVision

Seeing is Believing

New Lower Price!

MAIN BOARD
$349
24 Bit Graphic Card

Video Processor

Plug this card into the Main Board and add a wealth of additional features: a 24-Bit framegrabber, genlocker, customizable Digital Video Effects, and much more.

$995

Video Suite

A 19-inch, rack-mountable, video/audio mixing, switching and transcoding device which connects directly to the Video Processor.

$995

ColorBurst™

COLOR HAND SCANNER

Three scanners in one! Scan color, true grayscale and monochrome line art. Perfect for video, multimedia, desktop publishing and more.

- 4 Scan Modes: 262,144 colors; 4096 colors; 64 true grayscales; monochrome text
- 50-400 dpi (based on scan mode selected)
- ColorKit software - quick, accurate scanning: save IFF, HAM-8, and 24-bit IFF
- Parallel interface with cable
- AGA compatible
- OCR Jr. text recognition - S/W available option

MIGRAPH

$479

MIGRAPH

MONOCHROME HAND SCANNER with

* Touch-Up v3. (AGA compatible)
* OCR Jr. text reader

NOW $199

Professional Bundle

PROFESSIONAL PAGE 4.0

Automatic Genie functions automate most routine page layout and DTP tasks. Page Genies automatically create custom page layouts Function Genies provide new ease of use and user customization of program. New features include: undo button, irregular text wrap, enhanced color separation and under color removal algorithms, auto-tiling for output of larger pages.

PROFESSIONAL DRAW 3.0

An object-oriented color graphic design and illustration tool, now has dynamic hot link to Pro Page 3.0, and more than 30 automatic function and tool Genies for fast, effortless creation of professional-quality artwork. Over 275 ARexx commands allow user to edit or create Genies. Text and color handling, enhanced color separation, auto-tiling, undo, redo. Includes 145-piece clip art collection and utility allowing structured drawing clips to be converted to IFF bitmaps.

both for a low price of... $159

PROFESSIONAL CALC II

Professional business spreadsheet & graphics package. Over 125 statistical, trigonometric, financial & user definable functions. Graphic interface.

$129

VIDEO DIRECTOR

Complete system for quick & easy editing of video-tape. Includes software, universal remote, and serial port interface for VCR or camcorder.

$139

RETINA

New from MacroSystemUS

24Bit Frame Buffer and Workbench Emulation. Analog RGB output, 800x600 full 24Bit 16.7 million color display. Non-interlaced Full Workbench Emulation with resolution such as 1024x768 or 1280x1024 in 16 colors or even more! Up to 2400x1200! Paint program comes with Retina. The Retina can still be used to display 24Bit graphics while emulating Workbench. Requires the 2.0 or greater operating system.

W/2MB...$499
W/4MB...$579

Retina Video Encoder
S-VHS+Composite Out....$124
1084 ADAPTER.....$24

V Lab

Internal for the A2000, 3000, AND 4000. $429

New External for 500, 600, 1200 $479

- 24 Bit RealTime Video
- Digitizer AGA Support
- Digitizes Full Frame in 1/30 of a second

TOCCATA

The Toccatta is a full 16Bit audio digitizer with 3 Stereo inputs, digitize at up to 48 Hz in 16Bit and 8Bit direct to harddisk. Playback from HardDisk up to 16 channels in 16Bit. 64 Times Overstamping, 16 sampling rates, Freq. Response 10 Hz to 20 KHz. Simultaneous Record & Playback from HardDrive.

$499

MULTILAYER-ADPro

Requires Art Department Professional or MorphPlus & ARexx -AmigaDos 2.04 or higher. MultiLayer for ADPro is a compositing/layering interface for video professionals & artists using ASDG's ADPro program as a compositing engine. Improves ADPro's impressive array of compositing functions. Control up to 100 Layers.

$129

SPARKS™

Standard Particle and Real world Kinematic animation System for LightWave3D 3.0

$99

FINAL COPY II

For high quality print-outs of personal and business documents. Combines traditional word processing features with state-of-the-art printing technology. Includes 34 outline typefaces, a 1.4 million word speller, a 144,000 synonym thesaurus with definitions, graphics support & more.

$79

MONTAGE

MONTAGE for 2.0, 3.0 & Toaster 4000! The first high end titling application to directly support the Toaster.

$329

MONTAGE 24 for AGA Amiga and 24-bit Cards! $239

PROWRITE 3.3

Word processor has print preview, automatic text flow around graphics, vertical rulers, password protection, picture naming and searching, more. Also has Hotlinks support so you can interchange your documents with other applications for integrated word processing and DTP. AmigaDOS 2.0 compatible.

$56

BARS & PIPES PRO 2.0

Improved notation display & editing, revised look/feel, groove quantize, drum mapping, sequence trigger, Toaster control, much more.

$239

Power Tools Kit..........................$34
Performance Tools Kit..............$34

PAGESTREAM

Get PageStream 2.2 now, and **receive version 3.0 free** when it's released! PageStream is Amiga World's Experts' Choice and Amazing Amiga's Users' Choice. PageStream 3.0 can even load ProPage documents and it's AGA compatible!

$169

TV PAINT 2.0

True state of the art in Amiga 24 bit paint packages. The many features of TV Paint 2.0 include Image Manipulation, Drawing Tools, Editing Tools, Emboss, Sharper, Relief, Outline and much, much more.

$349

BRILLIANCE

$139

A powerful and intuitive paint package. Features: well laid-out user interface, extremely fast, multiple picture & animation buffers, multiple undo/redos, much more. Supports all graphic modes- 24-bit, 256 color, and 8 bit HAM. 1mb RAM min., more recommended. Supports graphic modes of the A1200 and A4000.

ONE STOP MUSIC SHOP

16-Bit, 32 Voice. Fully digital stereo audio. 4MB soundfile ROM, E-Mu G1.5 proprietary DSP, 20 hz to 20kHz frequency response. 2 stereo outputs at =4dBM into 600 Ohms. Integrated MIDI Interface.

$579

SUPERJAM!

Create accompaniments, soundtracks, styles & grooves quickly & easily. Stereo TurboSounds, 2 octave chords, visual volume & panning.

$89

typeSMITH

Create bitmap and outline fonts for all your programs! Convert and edit!

$124

ART EXPRESSION

$149

Full-featured outline illustration program. Create complex, artistic illustrations, scale, blend 2 objects together or color and line styles. Groups/Ungroups, Locks/Unlocks, flips and aligns objects. Rotates objects. Support Adobe Type 1 outline fonts.

PRICES SUBJECT TO CHANGE

Circle 101 on Reader Service card.

AMIGAMAN

AFTER DARK AMIGA ONLY BBS

412-962-0961

Game Reviews • Product Information • Service Tips
Rumors and Facts and much more!

After Dark
Operations
6 PM to 9 AM EST Mon-Fri
Sat & Sun - 24 Hours

Orders Only USA & Canada

1-800-258-0533

Open LONGER HOURS
9-9 Weekdays
10-8 Saturday
12 to 5 on Sunday

SUNDAY HOURS 12 5

A1200 GAMES plus SPECIAL

$399

THIS EXCLUSIVE A1200 PACKAGE IS ANOTHER GREAT AMIGAMAN VALUE ...
Package includes an Amiga 1200 computer w/powersupply, mouse and TV adapter plus these great software titles: Pinball Dreams arcade pinball simulation, Trolls AGA, and Quick Write word processor.

M1230XA

High speed 68030 Accelerator

W/32 Bit RAM Board up to 128 MB RAM, Math chip Option, Includes Realtime Clock

50 MHz 68030 w/MMU		40 MHz 68EC030	
50/0/0	$379	40/0/0	$299
50/50/0	$679	40/33/0	$499

Other configurations available

MBX 1200z

MATH CHIP 32-BIT WIDE RAM And REAL TIME CLOCK FOR THE NEW AMIGA 1200
FPU, 32-Bit Memory,w/Clock, Calendar & Bat. for the 1200

14MHz 68881	25MHz 68882	50MHz 68882
$129	$198	CALL

New! FROM MicroBotics, Inc

Modem 19

FASTEST MODEM ON THE AMIGA
Two models: Amiga Internal and RS-232 External with metal case and power. Internal **Modem 19** works in A2000, A3000 and A4000. Frees user from dependence on the native Amiga serial port.
External **Modem 19** works with any serial port computer. $299

DATAFLYER XDS for A1200

EXTERNAL IDE CASE
Install Your Favorite IDE 3.5 HARD DRIVE $69
Includes All Cables and Connections

External SCSI HardDrive Cases

All Units Include:
- Power Supply
- SCSI External Cable
- Power Cable
- SCSI Pass thru and Mounting Hardware
- LED

Single Bay open or closed front	$99
Upright Case for single 3.5HD	$109
Dual Bay for 2 half height HD's	$149
Four Bay open front (not shown)	$259

AMIGA CD32

Includes Sleepwalker & Pinball Fantasies

Your Number One Source for the World's First 32 BIT Graphic Multi Media and Entertainment Console!

- 2 MB RAM
- 14 mhz 68EC020 Processor
- Dual Speed CD ROM Drive
- 11 Button Handheld Contoller with Connections for Optional Mouse, Joystick and Keyboard
- Video Out to TV or Monitor

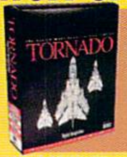
Now available: MPEG Module for movies
Call for pricing

CD32 TITLES

Now In Stock!		January Releases	
ARABIAN KNIGHTS	$25	ALFRED CHICKEN	$39
TROLLS	$39	CHOAS ENGINE	$39
D/GENERATION	$39	DANGEROUS STREETS	$39
DEEP CORE	$39	DIGGERS	$39
MEAN ARENAS	$39	REACH OUT FOR THE GOLD	$39
NIGEL MANSEL	$39	SURF NINJAS	$39
ROBCOD:JAMES POND	$39	TFX	$39
WHALES VOYAGE	$39	TV SPORTS DUO	$39
ZOOL	$44	WINTER SUPERT SPORTS	$39
LIBERATION	$39	JURASSIC PARK	$39
CASTLES II	$39	LEGACY OF SORASIL	$39
OSCAR	$39	LOTUS TRILOGY	$39
FIREFORCE	$39	LABYRINTH OF TIME	CALL

Lots of New... EXCITING AMIGA GAMES!

MORTAL KOMBAT $29



TORNADO $44

A320 AIRBUS	$44	LORDS OF POWER	$44
ALIENS 3	$34	THE LOST VIKINGS	$36
ALIEN BREED 2	$34	MEAN ARENAS	$34
ALFRED CHICKEN	$33	MEGA FORTRESS	$44
ARABIAN NIGHTS	$31	MICRO MACHINES	$34
ASHES OF THE EMPIRE	$24	MORTAL KOMBAT	$29
A-TRAIN w/CONST. SET	$44	NASCAR CHALLENGE	$21
B-17 FLYING FORTRESS	$40	NIGEL MANSEL	$38
BART VS THE WORLD	$34	NIPPON SAFES INC.	$38
BATTLE ISLE '93	$39	NICKY 2	$37
BEAST LORD	$26	NODDYS BIG ADVENTURE	$32
BIRDS OF PREY	$37	OVERDRIVE	$39
BLADE OF DESTINY	$48	OVERKILL	$26
BLOB	$33	OUT OF THIS WORLD	$37
BOB'S BAD DAY	$34	THE PATRICIAN	$41
BODYBLOWS	$34	PINBALL DREAMS	$25
BODYBLOWS GALACTIC	$34	PINBALL FANTASIES	$31
BRUTAL SPORTS FOOTBALL	$34	PROJECT X	$18
BURNING RUBBER	$34	QWAK	$19
CAMPAIGN 2	$44	REACH FOR THE SKIES	$34
CANNON FODDER	$38	RULES OF ENGAGEMENT 2	$44
CARDIAXXS	$16	SECRET OF MONKEY ISLAND 2	$38
CHAOS ENGINE	$34	SENSIBLE SOCCER	$39
CIVILIZATION	$44	SIMON THE SORCEROR	$44
COMBAT AIR PATROL	$31	SIM ANT	$37
CYBER PUNK	$34	SKID MARKS	$34
DARK SEED	$47	SLEEP WALKER	$44
DEEP CORE	$33	SOCCER KID	$38
DENNIS THE MENACE	$32	SPACE HULK	$38
DESERT STRIKE	$34	SPACE LEGENDS	$39
DISPOSABLE HERO	$34	STAR DUST	$25
DOG FIGHT	$44	SUPERFROG	$34
DUNE 2	$36	STRIP POKER 3	$31
FALCON	$19	STRIP POKER 3 DATA	$16
FATMAN	$39	SYNDICATE	$38
F117A STEALTH	$44	TERMINATOR 2	$39
F17 CHALLENGE	$19	THEATRE OF DEATH	$37
FIGHTER DUEL PRO	$37	TOM LANDRY STRATEGY FOOTBALL	$31
FLASHBACK	$36	TORNADO	$44
FRONTIER ELITE 2	$37	TRIPLE ACTION #2	$21
FURY OF THE FURRIES	$34	TRIPLE ACTION #3	$21
GENESIA	$39	TRIPLE ACTION #4	$21
GLOBAL GLADIATORS	$39	TRIPLE ACTION #5	$21
GLOBAL DOMINATION	$44	TOO HOT TO HANDLE	$25
GLOB DULE	$39	TRODDLERS	$39
GOAL (SOCCER)	$37	TROLLS	$34
GUNSHIP 2000	$42	URIDIUM 2	$34
HARRIER ASSAULT	$44	WALKER	$28
HIRED GUNS	$40	WAR IN THE GULF	$31
HISTORY LINE (1914-1918)	$44	CARMEN SANDIEGO-TIME	$31
ISHAR 2	$38	CARMEN SANDIEGO-USA	$31
JET STRIKE	$34	CARMEN SANDIEGO-WORLD	$15
JURASSIC PARK	$31	WHEN TWO WORLDS WAR	$44
KIDS RULE OK!	$20	WIZ AND LIZ	$39
KRUSTY'S FUN HOUSE	$34	WONDER DOG	$34
LEGEND OF KYRANDIA	$38	WOODYS WORLD	$39
LEMMINGS	$29	WORLDS OF LEGEND	$32
LEMMINGS 2	$37	YO JOE	$33
LORDS OF TIME	$19	ZOOL	$34

AGA Titles

1869 AGA	$38	JAMES POND 2 AGA	$31
ALIEN BREED 2 AGA	$37	JURASSIC PARK AGA	$36
AIRBUCKS AGA	$41	MORPH AGA	#37
BODYBLOWS GALACTIC AGA	$37	NIGEL MANSEL AGA	$38
BURNING RUBBER AGA	$37	OSCAR AGA	$34
CHAOS ENGINE AGA	$37	OVERKILL AGA	$26
DENNIS THE MENACE AGA	$34	PINBALL FANTASIES AGA	$37
DIGGERS AGA	$44	SIM LIFE AGA	$35
FATMAN AGA	$39	SLEEP WALKER AGA	$38
ISHAR 2 AGA	$37	SOCCER KID AGA	$39
		STAR TREK 25TH AGA	$44
		WHALES VOYAGE AGA	$38
		ZOOL AGA	$34

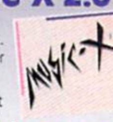
SCALA MM 210

Revolutionary new plug & play multi-media system. Combine laserdisk, still video, MIFI or CDTV sound. Over 80 smooth & professional transitions.
$299

New Version

MUSIC-X 2.0

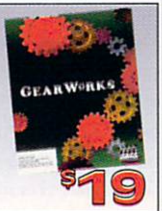
MUSIC-X 2.0 has all the features of the original version with the addition of new modules. DeFlam- to remove the grace notes & finger crushes that may occur while recording the sequence, An improved Quantizer module, Print EventList-prints list of sequences for editing, plus more!
Includes **NOTATOT-X**



$129

GEARWORKS

Gear Works™ is the most unique puzzle game to hit the market in years. In Gear Works™, you will connect various gears together in order to transform Twelve Wonders of the Ancient and Modern World into time pieces. You build the inner mechanisms by linking together gears while racing against time and fighting friction. Watch out for the Poffins, two gremlin-like creatures, that will frustrate your progress.



$19

AMIGA POLO SHIRT

WHITE SPORTS SHIRT FOR CASUAL WEAR BOUNCING BALL AND SHARK LOGO. SIZES: M, XL
$19

AMIGA JACKET $59

AMERICAN MADE.
HEAVYWEIGHT NYLON.
BEST QUALITY LINED WINTER SPORTS JACKET.
ALLOW UP TO 3 WEEKS.
SIZES: S,M,L,XL.
XXL AVAIL $7 EXTRA.
EMBROIDER NAME $5 EXTRA

$5
RED OR BLUE

AMIGA MOUSE MAT

AMIGA MUGS

2 GREAT MUGS TO CHOOSE FROM! $6
- I LOVE MY AMIGA
- YOU'VE COME A LONG WAY BABY

AMIGA T-SHIRTS

ALL SHIRTS ARE 50% COTTON, 50% POLYESTER

WHITE T-SHIRTS LIGHTWEIGHT I LOVE MY AMIGA ON FRONT SIZES: M,XL $9

BLACK T-SHIRTS HEAVYWEIGHT DESIGN ON FRONT AMIGA LOGO ON BACK SIZES: M,XL $11

RED T-SHIRTS HEAVYWEIGHT DESIGN ON FRONT AMIGA LOGO ON BACK SIZES: M,XL $11

AMIGA HATS

CHOOSE FROM 3 GREAT STYLES!
$8

MAILING ADDRESS: **COMPUTER BASICS, INC.**
1490 N. Hermitage Rd., Hermitage, PA 16148
FAX: 1-412-962-0279

Get Your Order FAST!

No additional charge for FedEx*
For what others charge for UPS Ground we deliver in 2 days or less.

SHIPPING - NORMALLY WITHIN 1 BUSINESS DAY!

UPS GROUND OR 2 DAY SHIPPING BY FedEx

$0 TO $99	7%	Minimum $5
$99 TO $199	5%	Minimum $7
$200 TO $499	4%	Minimum $10
$500 TO $799	3%	Minimum $20
$800	2.5%	Minimum $24

FedEx Overnight add $6 to above
PR, HI, AK add $10 to above
APO, FPO & CANADA are shipped by Mail .... add $8 to above

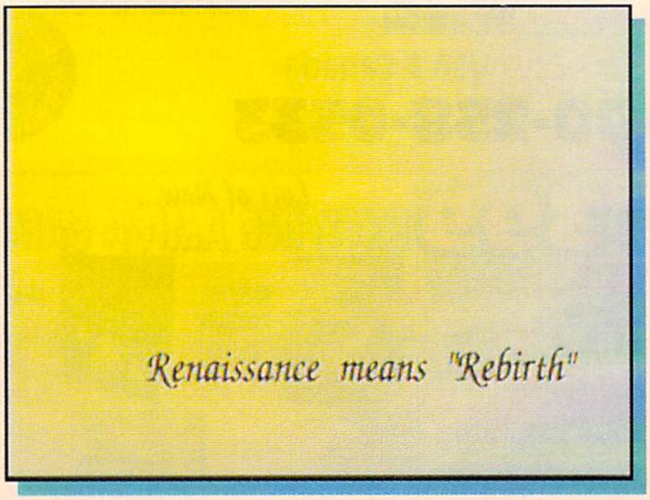
International Orders (not APO, FPO.) Send copy or FAX of front & back of Charge Card w/signature. Call or FAX for shipping quote.

COD orders OK. Add $5 Prices subject to change without notice. Returns accepted for 10 days after date of purchase

Call Customer Service for RA# before returning. Defectives replaced with same item. 15% Restocking fee for items returned and not exchanged for same. Customer responsible for return shipping.

*for orders under 10lbs. in the continental US. All orders fully insured. Monitors, computers, printers and other heavy items may incur additional charges...call for shipping quote.

Circle 101 on Reader Service card.



Renaissance means "Rebirth"

consumer unit, the Sony SL-686 VHS deck. Sony discontinued this unit, but its replacement is under $500. You might have to look around for a unit with satisfactory still frame, but you surely will need it. I also found that when you use DCTV to capture videotaped images, you need to avoid interlace flicker created by the paused VCR. I wasn't happy with my first attempts because the level of flicker was very objectionable. The solution to this problem turned out to be very simple. All you have to do is choose the non-interlaced button in the DCTV image capture program. There is also a tape mode that you must select if you decide to capture images from videotape. The button is off by default, and I ended up redoing several slides because I had forgotten to select it. The button causes DCTV to add a time-base correction step to the scanning process. Without this step, your images will have excessively jagged vertical edges. I knew I needed to use it from my previous experiments, but when I sat down for a second session of image capturing, I was in a hurry and didn't notice it wasn't time-base correcting until I had several images scanned.

Once I completed scanning the images for my presentation, I created the text slides. I used the DCTV paint program to create several different graduated backdrops for textual material. DCTV has several graduated fill options. My favorite is a circular gradation that I shaded from bright yellow to white. The center of the circle was displayed slightly off center to the left of the screen, and it made a great background for opening titles. The image resembled a rising sun, and I felt it was appropriate for a presentation on the Renaissance. Graduated displays created with DCTV are very smooth when viewed on an NTSC monitor, and I found them to be very pleasing to the eye. I have included a couple of examples of the finished text slides. Since I do not have permission to publish any of the graphics from the commercial videotape images, I have included one from a home video so that you may judge the image quality for yourself.

I used *Art Department Professional* to letter my text screens. The DCTV paint program will do titling and lettering, but since I was under a limited time constraint, I didn't want to take the time to learn how to use DCTV's text functions effectively. I already had previous experience with slide lettering while using Art Department, and so I used it to letter my slides. DCTV and Art Department Professional work quite well together. The only item that you need to be aware of is that after you have captured your image, you must save the DCTV image in 24-bit format before loading it into Art Department. After designing the background screens, I reloaded them into DCTV and saved them again as 24-bit images. The 24-bit images take up a lot more disk space than standard DCTV images. Once you have completed lettering your slides, the 24-bit files are no longer necessary, however. Art Department has a function that allows the display of a DCTV image directly on an NTSC monitor, so I could quickly and easily view my text additions in final form as I worked on them. I could then save the images in DCTV format directly from Art Department for final display.

I used *AmigaVision* to do my presentation. It is easy to operate and simple to learn. One secret of making bullet-proof presentations that I have learned is that if you start your AmigaVision presentation by double-clicking the presentation's icon, rather than by loading the AmigaVision editor and then loading your presentation, the only way to abort the presentation is to warm boot the computer or shut it off. If you load the presentation into AmigaVision and present it from there, you may accidentally abort your presentation by inadvertently hitting the right mouse button.

DCTV images display nicely from within AmigaVision. Since DCTV images are not standard Amiga images, however, there are several AmigaVision display transitions that don't work as expected when used with DCTV graphics, making these transitions unusable. There were several to choose from that work properly, and I made do with those. There were also a few that worked; however, they worked in a slightly different fashion from normal. Some of those transitions were appealing in their own way. Just a few minutes of experimentation will tell you which ones to use and which ones won't work.

When it was time to do my presentation, I used a 25-inch screen to display my output, and since the school had only a television—no video monitor connections were available on the unit—I fed the DCTV video output to the video input on an inexpensive VCR. I set the VCR output to Channel 3, and my images displayed nicely on the large screen TV. A true video monitor would have been a better display device. One advantage of the VCR/TV configuration is that I simply put a videotape in the VCR and recorded the graphics from my presentation directly onto the videotape. Should I wish to do this presentation again, theoretically, I could use that videotape instead of hauling my computer around.

One disadvantage to using a DCTV rather than my normal display genlock is that I cannot use my Amiga 1950 monitor to view the display during the presentation. DCTV images are barely discernible on your computer display. In my case, since I was using the RF output on the VCR to drive the television, I ran a cable from the Video Out connection on the VCR to the Video In connection on an Amiga 1084 monitor that I placed within my field of vision. This method was more than satisfactory, as I used the RGB connection on the monitor to view the Amiga output when I started up the A3000, and found my presentation. Once I started the presentation, I switched the 1084 into composite video output so that I could view the DCTV images directly. With A DCTV connected to the large screen monitor, the audience sees only a blank screen until a DCTV format screen display appears. The audience won't have to see anything that you are doing to run your presentation until the first presentation slide is displayed.

•AC•

Please Write to:
John Steiner
c/o Amazing Computing
P.O. Box 2140
Fall River, MA 02722-2140

Technical Writers
Hardware Technicians
Programmers
Amiga Enthusiasts

Do you work your Amiga to its limits? Do you do create your own programs and utilities? Are you a master of any of the programming languages available for the Amiga? Do you often find yourself reworking a piece of hardware or software to your own specifications?

If you answered yes to any of those questions, then you belong writing for *AC's TECH*!

***AC's TECH for the Commodore Amiga* is the only Amiga-based technical magazine available! We are constantly looking for new authors and fresh ideas to complement the magazine as it grows in a rapidly expanding technical market.**

Share your ideas, your knowledge, and your creations with the rest of the Amiga technical community—become an *AC's TECH* author.

For more information, call or write:

AC's TECH
P.O. Box 2140
Fall River, MA 02722-2140

1-800-345-3360

CanDo vs. HELM

Two superior authoring systems go head-to-head

by Randy Finch

I recently read a philosopher who remarked that the hardest part of writing his latest book was deciding what material to leave out, not what to put in. This is the way I feel when writing a comparative article such as this. *CanDo* and *HELM* are both so feature-filled that it is impossible to compare everything in the limited space of a magazine article. With this in mind, let me forge ahead with the comparison. I will be discussing CanDo v2.51 from INOVAtronics and HELM v1.37 from Eagle Tree Software.

Installation

CanDo and HELM are extremely easy to install. Both use the Installer program from Commodore. As I mentioned in CanDo Part 4 (*AC* 8.12), CanDo does not allow the user very many choices during installation. HELM, on the other hand, allows a variety of choices. For example, the user can select which sample programs to install and decide whether or not to overwrite an existing shared library.

Paradigms

CanDo uses the deck paradigm. A deck is a CanDo program that consists of one or more cards. A card is basically a window containing various objects that make up the user interface. Each card and its objects recognize certain events such as mouse button clicks. When an event takes place, a script can be executed. This gives the program functionality.

HELM uses the book paradigm. A book is a HELM program that consists of forms and pages. Like cards in CanDo, forms and pages are windows containing various objects that make up the user interface.

Forms are a powerful element of HELM. If several pages are needed that contain some common objects, yet some different objects also, then forms are the ticket. A form can be designed that contains the common objects, and then several pages can be created that each inherit the objects of the form. Additional objects can be added to the individual pages to complete the interface. If these pages all need a new object later, it can simply be added to the form, and it will automatically appear on all the child pages. This is an object-oriented approach to building the user interface. To simulate this in CanDo, one can create a card containing the common objects. This card can be copied several times and additional objects added to the copies. If a new object is needed later, it has to be added to one card and then copied to all the other cards.

Like CanDo, HELM's objects can respond to certain events. However, in HELM, there are two ways to respond to an event. One way is to use a script. Another is to create a list of actions. Actions are essentially pre-written scripts that perform common tasks and can be sequenced interactively using the mouse.

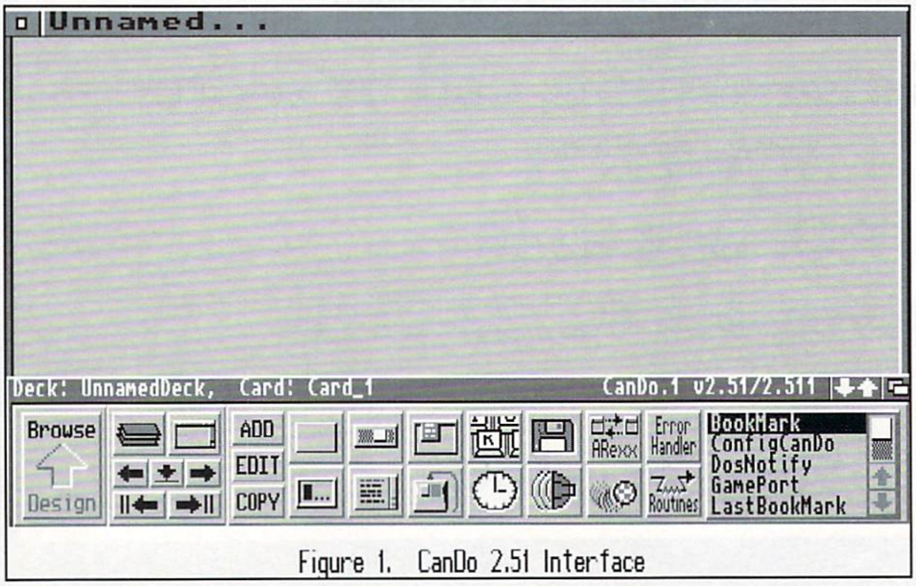


Figure 1. CanDo 2.51 Interface

Interfaces

CanDo starts a new deck with a blank card. The tools for adding interface objects to the card are on the Main Control Panel, which is on a separate screen that partially covers the card (Figure 1).

HELM takes a totally different approach. A new book starts with a blank page, but the tools for adding the interface objects are available via pull-down menus attached directly to the page. All of the pull-down menus remain available for the user of a book unless they are removed or disabled by the programmer. To make the editing of a page easier, HELM presents various tools via the Tools menu. When a menu item in the Tools menu is selected, a small window appears on top of the current page that contains tools for easing the task of interface building. Figure 2 shows several of the tools windows open on a page.

HELM comes with a special book called Bookshelf. If this book is in the same directory as HELM, it will be executed automatically each time HELM is run. Bookshelf is a simple traffic cop program that allows other books to be executed by clicking on a button (Figure 3). New books can be added to the bookshelf. CanDo does not come with an equivalent program, but one can be created quite easily by creating a button object, duplicating it several times, and adding a short script to each of the buttons' OnRelease events that use the LoadSubDeck and OpenWindow commands.

Objects

CanDo and HELM both have many similar objects that can be added to a card or a page. They include such things as buttons, text entry fields, timers, menus, list boxes, etc. However, there are some objects that only one or the other has available.

HELM has a chart object that allows data to be viewed in several formats such as bar, scatter, pie, line, and area. It also has many different selector objects. Some of these are Calendar, Check Box, Clock, Cycle (a real rollo button with a right mouse button pop-up menu), Item Slider, Matrix, Multiple Choice, Palette, Pop-up Menu, and Radio Box. More are available. Some selector objects are available in CanDo, but not nearly as many as in HELM.

CanDo has a few objects that HELM doesn't have. It has a KeyInput object that lets you trap certain key combinations and execute scripts. CanDo also has an Animation object and a Sound object. The first allows scripts to be executed at user-defined frames during the playing of a BrushANIM. The other allows scripts to be executed when an 8SVX sound begins to play and another when it ends.

HELM addresses several of the complaints I have had about CanDo. First, objects can be selected, sized, and moved by simply clicking on the object and dragging the mouse. This is a real time-saver when rearranging a user interface. Second, label text can be part of an object rather than having to write a script to add the text. This means that when an object is moved on the page, its label text goes with it—no more editing a script to keep it positioned correctly. Third, HELM has shape objects. Lines, curves, ovals, triangles, rectangles, polygons, and arrows can be added to the screen by drawing them. As with a structured drawing program, these objects can be moved and sized easily using the mouse. You can draw various shapes on the screen with CanDo, but it creates a script rather than an editable object. Using this method, a shape can be changed only by editing the script or deleting it and starting over. Fourth, HELM allows several objects to be selected and grouped together. They can be ungrouped later if necessary. Also, several objects can be saved to disk as a custom object and then loaded into another book with ease.

One thing I dislike about HELM is that its text entry fields are not Amiga standard whereas CanDo's are. The text in the field cannot be deleted using the RightAmiga-X key combination. Rather, the text has to be selected with the mouse and cleared, or it has to be removed with the backspace or delete key.

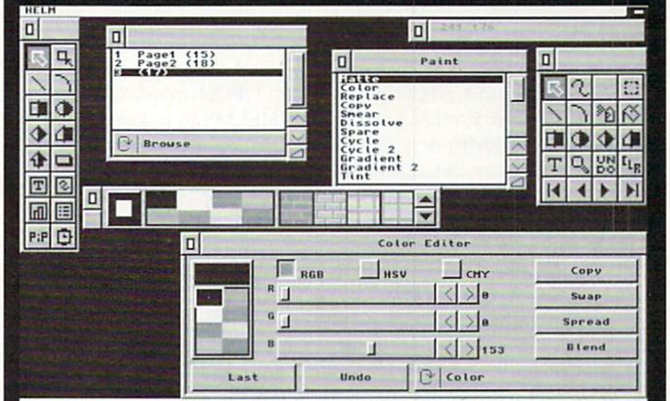


Figure 2. Helm v1.37 Interface With Tools

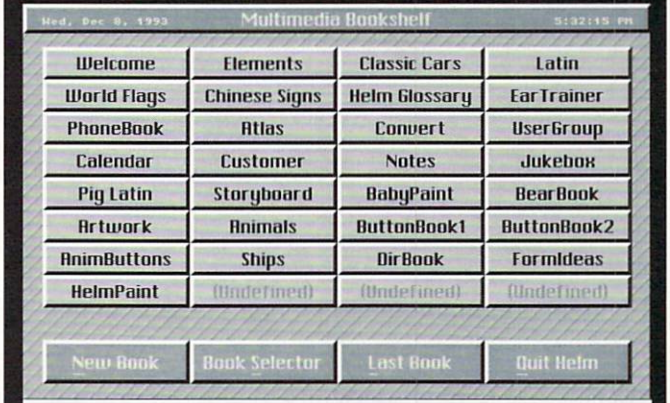
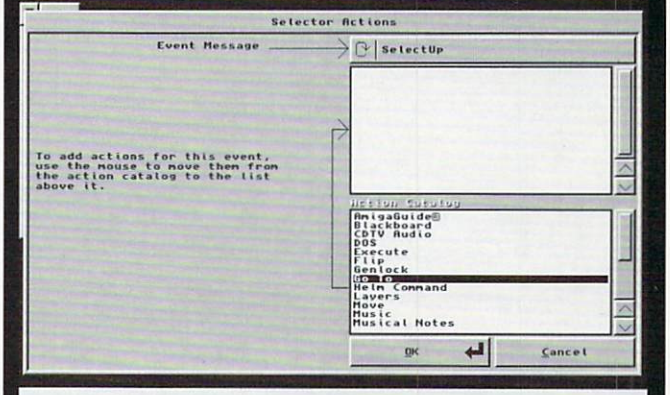


Figure 3. Helm's Bookshelf



To add actions for this event, use the mouse to move them from the action catalog to the list above it.

Figure 4. Action Catalog Requester in Helm

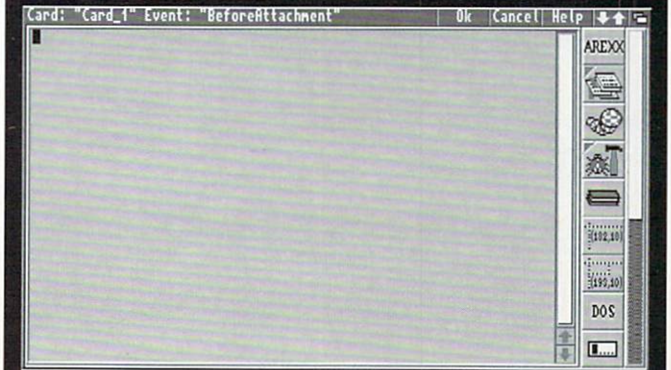


Figure 5. CanDo Script Editor With Editor Tools

Event Handling

CanDo and HELM both can detect and respond to a number of object events in a program. Generally, HELM supports a few more events than CanDo. For instance, HELM can detect a Right Mouse Button (RMB) click (MenuDown or MenuUp) for some objects. CanDo can detect a RMB event through its RightMouseButton object but it is generic to the whole card rather than object specific. However, CanDo can detect a Drag event; HELM cannot.

As mentioned earlier, HELM can respond to an object event in two ways. Actions can be executed or a script can be executed. Actions are built-in routines that can be selected with the mouse (Figure 4). Several actions can be sequenced together for event handling. This is nice for simple event handling, but for more complex tasks; scripts are required. In CanDo, a script must be written to handle an event.

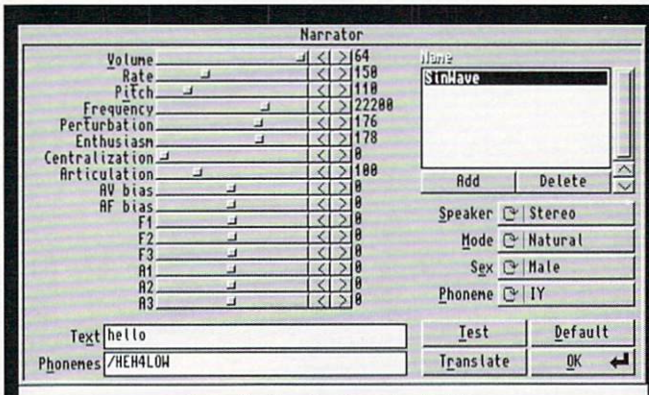
CanDo and HELM each have a very large number of commands and functions that can be used within scripts. They handle such things as numeric and string manipulation, I/O, graphics, sound, music, etc. CanDo takes a standard approach to programming a script. Examples can be seen in my regular CanDo articles. HELM, however, allows both a non-standard and a standard approach to programming a script. For instance, if you wanted to assign a value of 12 to the variable MyVar in CanDo, you would enter:

```
Let MyVar=12
```

In HELM, you could enter one of the following:

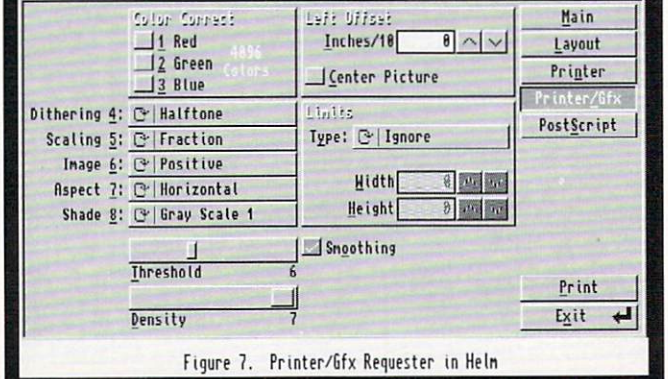
```
MyVar=12
put 12 into MyVar
```

HELM also introduces the concept of a container. A container is like a variable except it can contain much more than the standard numbers and text. Containers can hold any type of object that HELM supports such as buttons, image fields, text fields, pop-up menus, etc. The properties of a container's object can be changed with the Set command and obtained with the Get command. This is a very powerful and consistent way of handling object data.



Volume 64
Rate 150
Pitch 110
Frequency 22200
Perturbation 176
Enthusiasm 178
Centralization 0
Articulation 100
AV bias 0
AF bias 0
F1 0
F2 0
F3 0
A1 0
A2 0
A3 0
SinWave
Speaker: Stereo
Mode: Natural
Sex: Male
Phoneme: IY
Text: hello
Phonemes: /HEH4LOW

Figure 6. Narrator Requester in Helm



☐ 1 Red
☐ 2 Green
☐ 3 Blue
Inches/10: 0
☐ Center Picture
Dithering 4: Halftone
Scaling 5: Fraction
Image 6: Positive
Aspect 7: Horizontal
Shade 8: Gray Scale 1
Type: Ignore
Width: 0
Height: 0
☑ Smoothing
Threshold 6
Density 7

Figure 7. Printer/Gfx Requester in Helm

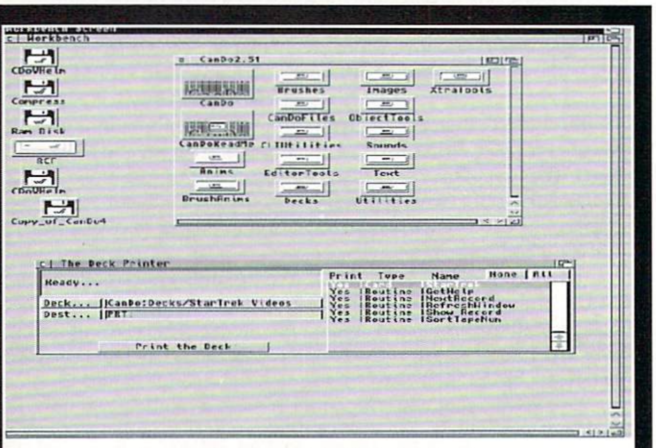
The script editors in CanDo and HELM are very similar in that they each support cut and paste, search and replace, and other common editor tasks. CanDo uses a separate script for each event that an object can handle. Thus, if a button recognizes both a Click and a DoubleClick event, the event handling for each is in a separate script. HELM objects have only one script containing all of the event-handling routines.

CanDo has Editor Tools along the right-hand side of the editor window (Figure 5). This is useful for inserting the names of files or having CanDo write small scripts rather than typing them in. Other tasks can also be handled via the Editor Tools. HELM does not have an equivalent feature.

Commands in CanDo have to reside on one line regardless of how long the line is. This can be a headache when printing scripts since some lines can become quite long. HELM supports a free-form style that allows commands to be wrapped around to another line or combined on one line. This can make for some unreadable code if the programmer does not adopt a formatting standard.

Graphics

CanDo and HELM both support the new AGA graphics modes. Also, as you would expect, CanDo and HELM support IFF ILBM bitmap files, Brushes, ANIM-5 animations, and AnimBrushes. HELM supports all of these formats directly; CanDo supports all but the ANIM-5 format directly. With CanDo, ANIM-5 files must be played using an included utility named AnimPlayer. As mentioned earlier, CanDo has an object available that allows scripts to be synchronized with a BrushANIM. AnimPlayer allows synchronization via ARexx message passing (see CanDo Parts 5 and 6 in *AC* 9.1 and 9.2).



Ready...
Deck... CanDo:Decks/StarTrek Videos
Dest... PRT:

```
Print   Type      Name
Yes    |Routine  |GetHelp
Yes    |Routine  |NextRecord
Yes    |Routine  |RefreshWindow
Yes    |Routine  |Show_Record
Yes    |Routine  |SortTapeNum
```

Figure 8. ThePrinter Utility for CanDo

HELM has a built-in paint program. It is not as powerful as something like *DeluxePaint IV*, but it has all the basic tools expected in a paint program. Image manipulation tools are also available. All of these tools can be used in an application. HELM allows many different transition effects between pages. These include wipes, scrolls, slides, dissolve, venetian, and more. The effect area can include the entire page or a smaller user-defined area. None of these tools are available in CanDo.

Sound and Music

CanDo and HELM both support 8SVX sound files. As mentioned earlier, CanDo has an object available that allows scripts to be synchronized with the beginning and ending of a sound playback.

CanDo supports MED, OctaMED, Sound/Noise/ProTracker, and Oktalizer song files but does not support SMUS files. HELM supports SMUS files and nothing else. However, HELM has its own internal note player. Within a book, a series of notes, designated with letters of the alphabet, can be played. Embedded codes can be used to set volume, channel, MIDI channel, note duration, etc. This can be very useful for short single-track musical scores.

Narration

HELM has direct support for the narrator. However, as you probably know, the translator shared library, which translated ASCII text into phonemes, and the narrator device, which turned phonemes into speech, are no longer distributed with AmigaDOS. They were last included in AmigaDOS 2.04. If you have the appropriate files from some earlier OS disks, you can copy them to your system disk and use them with HELM. Many different aspects of how the speech will sound can be adjusted via a requester (Figure 6). Also, narration can be synchronized with the playback of an animation.

CanDo has no direct support for narration, but it can be added. The AmigaDOS 2.04 MountList file in the DEVS: directory has a device named SPEAK: that can be mounted. This device, which is implemented as a handler, allows ASCII text to be copied to it. It in turn translates the text and speaks it. Within CanDo, a new write-only file can be opened to this device, and text can be sent to it via the FileWriteChars or FileWriteLine command. Options can be added to the end of the device name such as "SPEAK:OPT/r/s100". This example sets the robot voice with a fast speaking speed. The options that are available can be found in any AmigaDOS Manual that documents the Say command.

Hypertext

HELM supports hypertext. Text within a textfield can be selected and an attribute set to hypertext, just as it would be set to bold or italic. Actions or a script can then be attached to either a SelectUp or SelectDown event. The appearance of hypertext is user-selectable.

CanDo does not support hypertext. I believe it could be simulated, but I would not want to be the one to attempt it.

AmigaGuide

CanDo and HELM use AmigaGuide both for their own internal help systems and for user programs. HELM allows AmigaGuide files to be displayed from an action or from a script.

System Support

CanDo has quite a bit of support for AmigaDOS that is missing in HELM. For instance, CanDo supports AppEvents. This allows icons to be dragged to a CanDo application window on the Workbench. The application receives a list of icon names, and it can respond appropriately. CanDo supports loading, manipulating, and saving icon files (the files ending in .info). This includes saving a ToolType list. Commands are available that allow an application to obtain a current device list, directory list, buffer list, and startup messages. The pointer can be set to a different image and turned on and off. Also, CanDo uses the standard file requester in asl.library; HELM does not. For C programmers, CanDo has two system variables that contain the address of the current screen and the current window.

Data Handling

As I discussed in detail in CanDo Part 2 (*AC* 8.10), CanDo supports user-defined variables, sparse arrays, and documents. These can be combined to provide a convenient way for a user to add, delete, change, load, and save data.

HELM takes a totally different approach. Data is saved automatically. Whenever a page with input fields is filled in or changed by the user, the new data is saved to the book file. Although this is extremely simple from a programmer's perspective—nothing has to be done—I am not yet sure if I like this. For instance, when I am testing a program, I like to enter a lot of erroneous data. I almost never save the data since it is not real data. If I do save it, I create a trash file that can be deleted later. With HELM, the erroneous data goes right into the book file. To revert to actual data, a copy of the book must be created with no data in it, or the erroneous data must be deleted page by page.

Printing

HELM has some built-in tools for printing book data to a printer. It allows essentially all of the user's printer preferences, both text and graphics, to be set from within a book (Figure 7). HELM also supports Postscript output. Custom reports can be designed and printed.

CanDo does not directly support printer setup and reporting. The AmigaDOS Preferences programs Printer, PrinterGfx, and PrinterPS must be executed from within a CanDo deck using the DOS command to get equivalent printer setup functionality. For an example of how to create a report in CanDo, see CanDo Part 7.

CanDo has a separate utility named ThePrinter that can read a CanDo deck and then print its contents to a file or a printer (Figure 8). The print-out contains information about all the deck's cards and objects, including locations, text, text styles, etc. as well as a listing of all the scripts in the deck.

HELM allows scripts and graphic images of its pages and forms to be printed, but there is no way to print information about a book's forms, pages, or objects. This is very inconvenient if you need to fully document a program's content.

Distribution

In order to distribute a CanDo deck to a person who does not own CanDo, a runtime library is needed. INOVAtronics will provide one that can be distributed free if the program is public domain or shareware. However, if the program is a commercial product, the developer must pay a distribution fee.

HELM books can be distributed without a fee regardless of whether they are commercial or not. A program named HelmBrowser, which is included with HELM, allows anyone to use a HELM book without owning HELM. HelmBrowser is freely distributable.

Since HELM allows all of the tools of the program itself to be available to the end user (HelmBrowser does not include development tools), it allows the programmer to set a user level. Each level restricts the user in different ways. This allows the programmer to give the user just enough freedom to use the book effectively without messing it up.

Closing Comments

I think I'll end it there. I hope this gives you a feel for the similarities and differences of CanDo and HELM. As I said at the beginning of this article, it was not possible to cover all aspects of these programs since they have so many features. I personally like both products and intend to continue using both, choosing the one that is most appropriate for an application based on their features. If you are brave, you could use both products in one application since both products support ARexx. If you like developing applications, you need to have both of these products in your software library.

•AC•

Please Write to:
Randy Finch
c/o Amazing Computing
P.O. Box 2140
Fall River, MA 02722-2140

Aladdin 4D:

As you may have discovered by now, as we have progressed with these tutorials, *Aladdin 4D* offers the Amiga artist and animator a wealth of options for creating some pretty awesome video art. The best news is that no two Amiga artists are going to get the same look to their A4D work, because A4D allows you to personalize that work to a maximum degree. With that in mind, let's proceed to this month's creativity lesson.

Cameras, Targets, and Paths

In this session, I will demonstrate some fairly simple ways that you can alter the look of your animation by using an A4D Camera/Target system. I say fairly simple because once you understand the basics, you can take this same knowledge and use it to create much more intricate results than my lesson demonstrates.

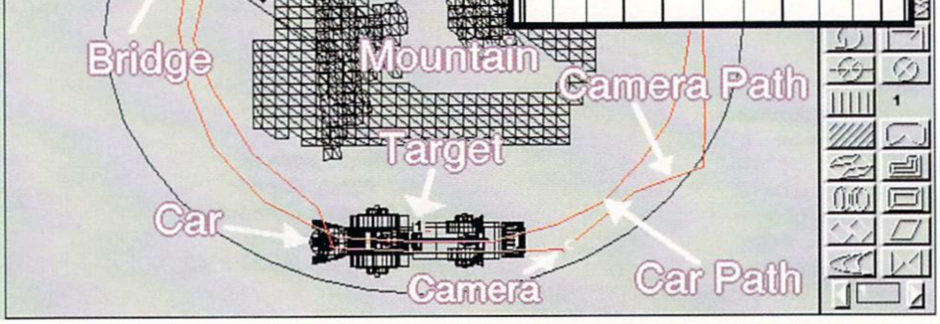
The Camera and the Target

The principle is the same in many Amiga 3-D/4-D software packages, though it may be alluded to under different nomenclature. Some packages call this principle an Eye/Target system, while others use the terms Viewpoint/Lookpoint. The meaning is the same. Essentially, it is defined as a place from which you view a scene, the Camera in this case, and what you are looking at, the Target. In the case of A4D, the Camera and the Target can each be assigned a separate path, a pattern of movement, that interjects itself in a multitude of ways throughout the animated sequence. In Aladdin, a path is constructed like any other polygon, and it can be altered so that it winds its way through all three spacial dimensions, curving in any direction that you desire. When you tell the software to make the poly a path, it turns a nice visible red color on the edit screen, making it instantly discernible from other poly structures, which are usually black. Paths can have very complex attribute lists, sets of directions that give them rotational and other powers over anything assigned to them. Just as polys can be assigned to a path, so can cameras and their targets.

Turning on the Camera/Target operator in A4D brings both to the screen at once. The camera appears with an identifiable C, and the Target with a number. You can have more than one Target, and each one has its succeeding number as an identifier. What does it mean when a Camera has multiple Targets? The Camera can look at only one Target at a time, but over time it can pan from one Target to another. Can you deduce the infinite variability that this provides, even in a simple animation? If you had an airplane following an assigned path and placed one Target at its nose and one at its tail, you could fashion the animation so that at a certain frame the Camera would pan the airplane from nose to tail as it flew along.

From here on, things will be a lot easier to describe if you look at Figure 1. As you can see, I've provided both a side and a top view. Look at the top view and locate the Camera and the Target. Notice that each has been assigned to a different animation path. Each of these paths were exact clones at one time. Then I took the Camera path and distorted it so that it varied on the Z-axis; this can be seen clearly if you look at the side view. What this did was to cause the Camera to move up and down in relation to the more stable Target path. I also added more points to the Camera path and moved it in and out of the Target path at select points. This caused the Camera to sway as it moved through the animated sequence, but it always kept its eye on the Target as it moved along its own path.

If you look at the top view, you can see that it has a number of sculpted elements. The mountain was imported into A4D



Left: Figure 1.

Right: Figure 2.

Introduction to the A4D Camera/Target System

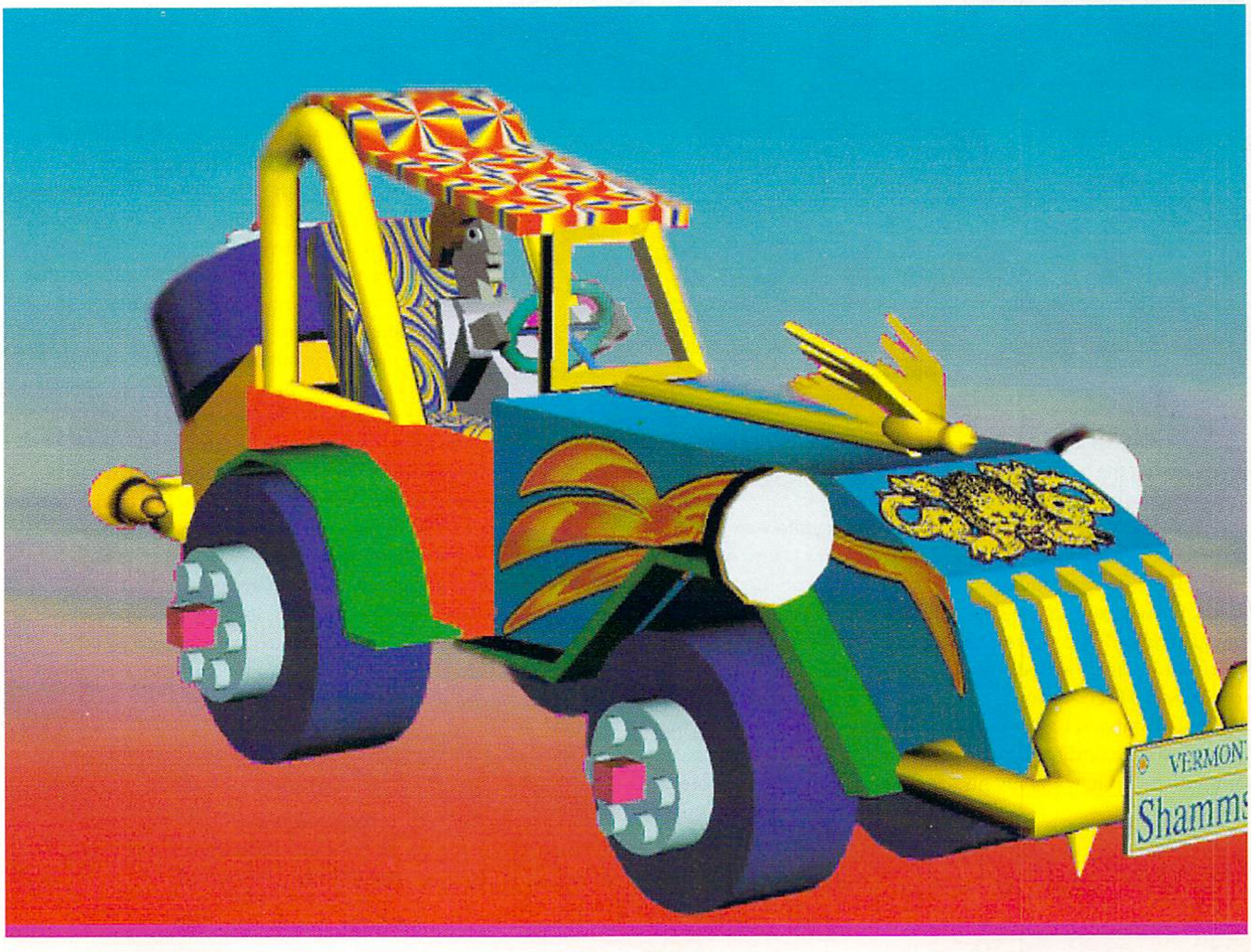
R. Shamms Mortier

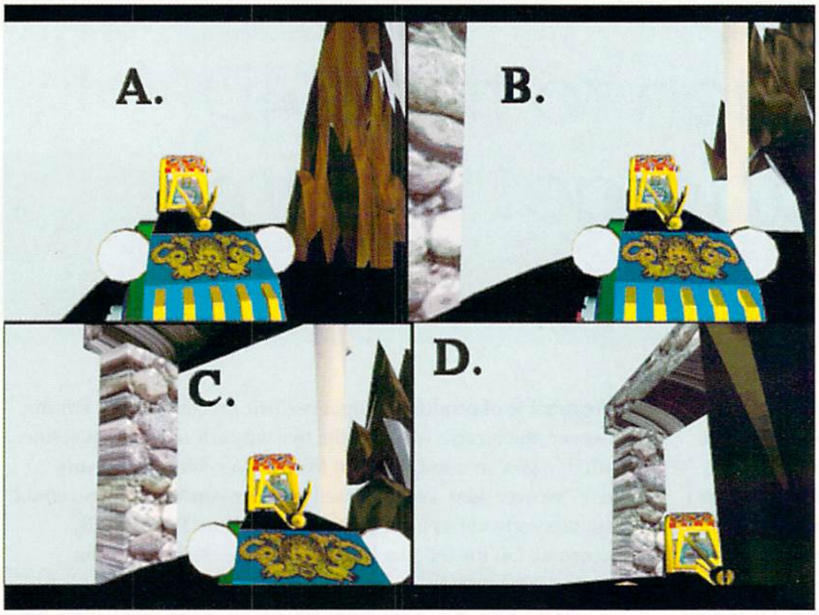
as a *Natural Graphics Scenery Animator* digital elevation map file, and then cut apart and reworked until I got a shape I liked. The mountain rests on a simple columnar pedestal. If you look at Figure 1 again, you will notice a small underpass or bridge that I placed in the scene so that the animated vehicle would pass under it as it sped along. It took some testing to make sure that the vehicle didn't melt through the mountain as it turned on the path. Since A4D has an excellent wireframe preview option, I was able to tweak the path so that no unexpected merging of objects surprised me in the final rendering.

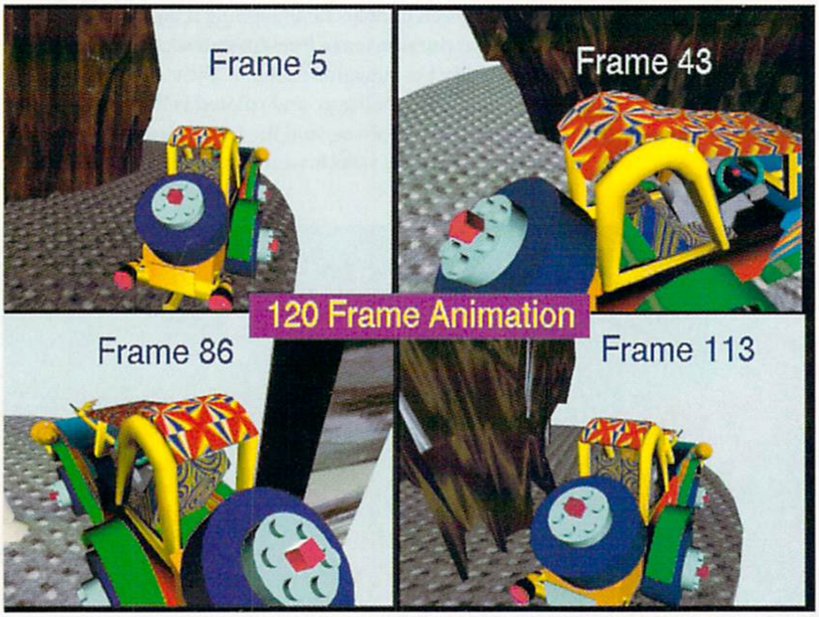
My Unique Car

I am not a great fan of realism, figuring that automotive design is best left to dedicated engineers. What I look for is the altered reality of the dream state in my work, although A4D is quite capable of producing super realistic images as well. For me, however, the bizarre world of the twisted cartoon works just fine. With that goal in mind, I set out to create a vehicle unlike any other I've ever seen. I also wanted to show you how far you could push this software as a design tool, and I think I've partially succeeded. Let me tell you how some of the elements of this vehicle were created.

The canopy was a simple shape that was extruded along the Y-axis to give it depth. Then I placed one of A4D's special procedural textures on it, projection mapping it on the Z-axis. I colorized the procedural to make it resemble a section of a British flag, at least with that colorization in mind. The side bars were extruded along a curved polygon, and colored yellow. The inside was built in a rather boxy shape, and the fenders added as extruded shapes later. The wheels were my favorite, and the hub







caps were added later. Just for good measure, I placed another spare tire on the back, along with a bumper and even an exhaust pipe sticking out.

The hood was sculpted and colorized separately and pasted in place. On the front of the hood I placed a simple bird ornament and colored it yellow along with a bar that ran the length of the hood; the window area, by the way, has a piece of near-transparent glass installed. I took an ancient Inca symbol and mapped it on the front, and also added a grill and bumper. The final touch was my personal license plate (Fig. 2). I placed rotational paths at the center of front and back wheels, and these were the only moving parts of this sculpture. The little guy driving was sculpted by simple extrusion, with only his eyes added to give him a more 3-D appearance.

Camera/Target Animations = Infinite Variability

If you've been animating for a while, you no doubt realize that it takes a lot of creative energy to produce just a few seconds of movement on the screen. One way in a Hollywood movie that various actions in the plot are used to fill in more space than just the actual passage of time is to show the same action repeatedly from different camera vantage points. This is especially true when the action involves an expensive or time-consuming set-up, like a car chase or an explosion. This not only adds running time to the sequence, but enhances the visual interest overall. The same thing can be accomplished in a computer animation.

Just look at the difference between the sequence of frames generated in Figure 3 as compared to those in Figure 4. Both of these animations were created with exactly the same objects and object animation paths. In fact, the target of the animations was the same, being placed a little behind the driver of the vehicle. The difference comes into play when we consider the placement and the path of the A4D Camera. In Figure 3, the camera was placed on a path cloned from the object movement path, with no added alterations except that it was raised a little from the object path. The camera was also placed at a distance a bit ahead of the car. This produced a standard but fairly monotonous chase scene, as if we were filming from a vehicle directly ahead of our target vehicle. Now take a look at Figure 4. Notice that in the representative frames, we see the target vehicle from many different vantage points. This was accomplished simply by altering the shape and number of points of the Camera path, so that with added points, the Camera moved at a different rate than the target vehicle. The Camera starts out behind the vehicle and weaves in and out of the object path. This is a far more interesting animation. Instead of using it alone, however, I mixed both the fairly static and the complex animations for the final edit, giving me the chance to elongate the sequence in an interesting fashion. Just by manipulating the Camera, Camera path, and the Target position further, I could create another thousand animations quite easily and choose what looked best for my final edit. All of this was accomplished without ever repositioning the object, its path, or redoing the other elements of the scene. This is a way to save time and achieve fantastic and novel results for your animated wonders. Can you deduce the possibilities from this simple tutorial?

•AC•

Please Write to:
R. Shamms Mortier
c/o Amazing Computing
P.O. Box 2140
Fall River, MA 02722-2140

INSIDE

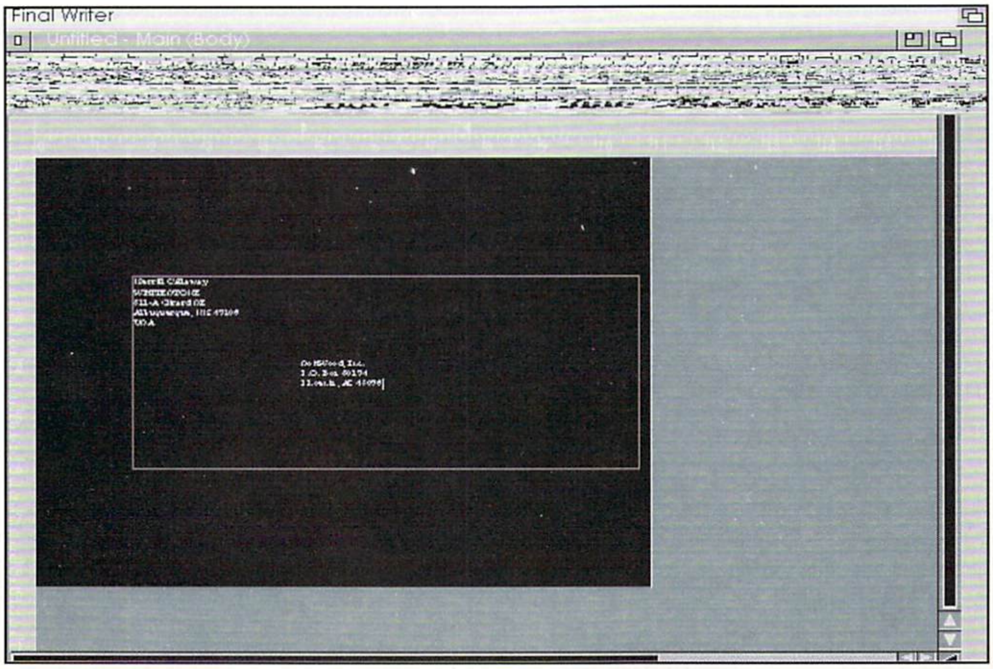
ARexx

by Merrill Callaway

ARexx for Printing Envelopes from *FinalWriter*

FinalWriter has a larger ARexx command set than any of the previous SoftWood products. Yet I remain frustrated by SoftWood products when it comes to controlling their programs with ARexx. The SoftWood programmers either have no clear concept of Inter-Process Control (IPC) and what it can do, or else they don't think it's important. The ARexx support in FinalWriter really only facilitates writing macros for the document you are in, because the most elemental ARexx IPC command has been omitted, namely the command to find out the name of the ARexx port of the current document. When you are writing a macro that operates only within the document you have open, you don't care about the ARexx port address of your document, because you are in it, and it's running. You do care, however, when you need access to this document from outside. Just as no business can subsist only on internal messages, never sending or receiving letters to or from outside businesses, so no ARexx host application should be limited only to macros, ignoring IPC.

➛



The envelope is ready to print. Note the 'wide' page orientation and the margins.

In FinalWriter if you need, say, several documents open, you must guess which is which, or you must write some extra tedious code to parse the ARexx Port List and still more or less guess which document is which! This is an unconscionable omission by SoftWood; for some unfathomable reason they persistently omit this most important ARexx command. I was disappointed to discover this when I tried to write what surely must be the most obvious macro one could write for a word processor, a macro to print envelopes. Not only couldn't I find out the port names I needed, but I soon found that a document created via ARexx did not print the same way (in PostScript) as an identical document created manually! This was a bug, not an omission, and I put in a report to SoftWood. To their credit they did fix the bug, and supplied me with a new "fwarexxx.library." I'm going to discuss my workaround anyway because I want to share some important techniques for making do when you are faced with imperfect software. My goal was to print envelopes from FinalWriter because it's a very good word processor after all, and I didn't care if my solution was elegant as long as it worked.

Printing Envelopes

Printing envelopes is a useful macro for FinalWriter. The program has the capability to print landscape ("wide") or portrait ("tall") so it seemed likely that an ARexx macro could set up a new document and print the address information which had been block-selected in the main letter. In the April, 1993 column, we looked at printing envelopes in PostScript. I could have modified that code to accept the selected address text exported as ASCII text, and print my envelopes. However, I wanted the font on the envelope to match the font of the letter body, and I wanted to test the FinalWriter ARexx command set.

Prototype for a Program

The first step in any program is to make some sort of prototype or pseudo-code to describe what your program will do. A prototype document was best here. I created a special document with an address and a return address on it and got it to print an acceptable envelope. Then it should have been a simple matter to write an ARexx script that would perform all the document settings and paste in the new address in the proper place and print, but it wasn't. I found that the prototype document and the ARexx-built document looked exactly the same and the settings were the same, but they printed differently! I determined that there was a bug in the PostScript output by printing each document to a file and comparing them line by line. I found an extra three lines in the ARexx document that spoiled the print. What do you do when you find a bug and need a workaround? Was I any closer to printing envelopes, or would I have to wait for the bug fix? I decided to use the actual prototype envelope document, saved without any address information. Then, in order to print the address on an envelope, I'd select the text, run the macro—attached to a user-button—and the envelope file would be opened, the text inserted, and the document printed without saving the document. It worked. How should we configure the envelope document?

An Envelope Document

We need a regular page size of 8.5 x 11 inches. Most laser printers that print envelopes have the envelopes fed lengthwise. Look at the envelope oriented the way you hold it to read the address on it (wide edge horizontal). It is placed on a landscape (wide) oriented page as follows. The print area is as if the envelope were centered top to bottom on a landscape-oriented page (wide), with the right edge of the envelope against the right edge of the page. The page would then be fed to the printer right edge first, and the printed words would be in landscape orientation. It is a straightforward matter to set "fat" top, bottom, and left margins, and minimum right margin, so that text will only go where the envelope covers the 8.5x 11 page. Here are the FinalWriter margin settings (in inches) that worked for a standard Number 10 business envelope of 4.125 x 9.5 inches: top 2.35, bottom 2.35, inside (left) 1.75, and outside (right) 0.25.

Now that there are margins, how do we get text to go in the upper left corner for the return address, and still align in a block left paragraph at the center of the envelope space for the regular address? After some experimentation, I found that setting up the page into three columns with zero gutter width worked well. Use the Layout/Section Setup Menu requester to set the columns. It becomes a matter of typing in the return address, followed by 23 line feeds to carry us over to the center column halfway down the envelope, and finally pasting in the selected text from the letter. It will align block left because there is a column edge here. After the text is inserted, it is simple to print the document without saving it. In order to insert text, you will have to move the cursor down 23 lines. In order for the cursor to move down, the (blank) lines must already be there! To prepare the document for use in our macro, you must insure that there are 30 or so blank lines starting at the position of the return address, or enough lines to carry the cursor to the center of the envelope print area. The document should be saved with the cursor at the start of the return address area (the upper left hand corner) and no address information. We want the fonts to carry over, so we will let the macro type the return address, too. The macro will move the cursor down 23 times which places it at the correct position to start pasting the address we selected in the main document.

Macro to Print Envelopes Using a Prepared Document

Listing 1 shows the macro that uses the envelope document described above. The first obstacle to overcome is how do we address our macro commands to the envelope document once it's open? Technically speaking, we are no longer performing a macro, but IPC from our letter document to the envelope document. We must find the ARexx address for the envelope document.

What's the ARexx Address?

After we copy the selected text in our document, the first thing is to find the port name of the envelope document once it's open. Now, FinalWriter numbers the open ARexx ports in sequence. If there is only one document open, its ARexx port is named "FINALW.1"—case sensitive, all capital letters, not what the manual says! For only one document, we could just open the envelope document and use the ARexx address "FINALW.2" to paste in the envelope address information, but what if we have several documents open? If we can get the port number (#) of the last document opened, then if we open one more document, it will have a port name of "FINALW."(#+1). Fortunately ARexx has some resources to track port names, even if SoftWood does not. By using the SHOW(P) ARexx function, we obtain a list of open ports, separated by blanks. We PARSE this list to find all the ports starting with "FINALW." and strip off their number components. Note how we use a compound symbol token num.j to make a different name for each new number, since we don't know beforehand how many there will be. Next we need to find the maximum of these numbers, and add one. That becomes the number of the next FinalWriter document opened, which will be our envelope document. We need to construct an argument string of each number separated by commas. STRIP() takes out the leading and trailing blanks but leaves the embedded blanks. SPACE() converts the embedded blanks into commas, using the optional pad character. SPACE() takes three arguments: the variable, the number of pads to add, and the pad character. We have constructed an argument list for MAX().

INTERPRET!

The INTERPRET instruction accomplishes the task of finding the maximum number. The ARexx function MAX(n1,n2,...) requires numeric arguments, so it won't do to feed it our string even though it looks like a numeric argument list. Since we never know how many numbers there will be, all we can do automatically is to create a string that looks like the argument list: several numbers separated by commas. But the INTERPRET instruction causes ARexx to scan a string and then execute it as if it were an in-line ARexx program! The expression, when evaluated, looks just like the MAX() function complete with its argument string, its value assigned to a variable called maxnum. INTERPRET executes this little program within a program, and afterwards, we can work with maxnum because it contains the value of the maximum number in the list. This extremely powerful and high-level aspect of ARexx solves programming problems not otherwise soluble. This is an example of a program that modifies its own code!

Opening the Document

We may now open the envelope document because we know the ARexx port name it will have. Note the correct way to open it. Make sure your path is substituted for mine. We need to allow several seconds for the ARexx port to come up in the ARexx port list, so we use the ARexx command utility called WaitForPort. Here we use our command utility as from a shell. Theoretically, command utilities may also be sent to 'REXX' as commands, but inexplicably that will not work here. The "one liner" ADDRESS COMMAND launches an AmigaDOS command without changing the current host address. Any one-line command on the same line as the ADDRESS instruction does this, so you need not change the current host address back again. Notice the symbol portname stands for the actual port name which will be something like "FINALW.2". A symbol will work fine, except we have to remember to use the subkeyword VALUE with the next ADDRESS instruction. VALUE changes the address to the value of a symbol when the address is not a literal string.

Pasting the Information

Now that we are at the correct address—that should have been only one line of code in a proper ARexx command set—it is a simple matter to do the FinalWriter command "Type" to insert my return address. Note the use of "newline" characters, which are the hex rendition of decimal number 10. If we type a control character code in hex, it will act as if we had typed it on the keyboard. The DO loop takes us down and over to the next column where we can paste and print.

The Original Macro

My first macro is in Listing Two. It works the same except that the document is prepared from scratch using ARexx. Contrary to what the manual implies, it is better to perform the document settings on separate lines instead of on one long line. I found one long line often did not work, so I separated the commands. Although this macro is a little longer, you don't need to keep a document around wasting space on your hard drive. The final step is to assign either of these macros to a button so you can print your envelope at the time you write your letters with a few mouse clicks. If you want to check the position of the address first, and print and close manually, just remove or comment out the print and close lines. The first letter you ought to address is to SoftWood insisting that they put essential commands in their ARexx command set!

Listing 1

```
/* ================================================ */
/* Print an Envelope with selected text as the      */
/* address.                                         */
/* FinalWriter macro written by Merrill Callaway    */
/* $VER: Envelope 1.0 copyright 1993 by             */
/* Merrill Callaway                                 */
/* ================================================ */

Options Results

COPY

/* find portname */
portlist=show(p)
j=1
numlist=’’
do while portlist~=’’

   parse var portlist port portlist
   if left(port,6)==’FINALW’ then do
      parse var port . ’.’num.j
      numlist=num.j numlist
      j=j+1
      end
   else iterate
   end
j=j-1

numlist=strip(numlist)

numlist=space(numlist,1,’,’)

interpret ’maxnum=max(1,’numlist’)’

portnum=maxnum+1

portname=’FINALW.’||portnum


OPEN “Video:finalwriter/fwdocs/envelope.fw”

ADDRESS COMMAND WAITFORPORT portname
ADDRESS VALUE portname

Type “Merrill Callaway”’a’x
Type “511-A Girard SE”’a’x
Type “Albuquerque, NM 87106”’a’x
Type “USA”’a’x

DO i=1 TO 23
CURSOR DOWN
END

PASTE

PRINT
EXIT
```

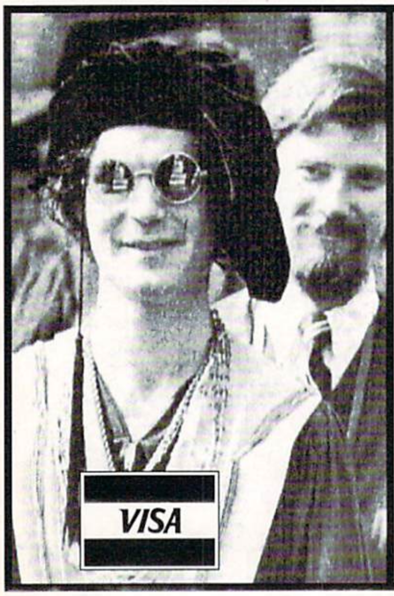
➛

Listing 2

```
/* ============================================== */
/* Print an Envelope with selected text as the    */
/* address.                                       */
/* FinalWriter macro written by Merrill Callaway  */
/* $VER: Envelope 1.1 copyright 1993 by           */
/* Merrill Callaway                               */
/* ============================================== */

Options Results

Copy

/* find portname */
portlist=show(p)
j=1
numlist=’’
do while portlist~=’’

   parse var portlist port portlist
   if left(port,6)==’FINALW’ then do
      parse var port . ’.’num.j
      numlist=num.j numlist
      j=j+1
      end
   else iterate
   end
j=j-1

numlist=strip(numlist)

numlist=space(numlist,1,’,’)

interpret ’maxnum=max(1,’numlist’)’

portnum=maxnum+1

portname=’FINALW.’||portnum


New

ADDRESS COMMAND ’WAITFORPORT’ portname

ADDRESS value portname

PAGESETUP Pagetype USLetter
PAGESETUP Orient Wide
PAGESETUP Pages RightOnly
PAGESETUP PrinterType Continuous
PAGESETUP Left 0 Right 0
PAGESETUP Top 0 Bottom 0

SECTIONSETUP name main
SECTIONSETUP top 2.35 bottom 2.35 inside 1.75 outside 0.25
SECTIONSETUP columns 3 columngap 0
SECTIONSETUP header 0 footer 0

Type “Merrill Callaway”’a’x
Type “511-A Girard SE”’a’x
Type “Albuquerque, NM 87106”’a’x
Type “USA”’a’x’a’x’a’x’a’x’a’x’a’x’a’x
Type ’a’x’a’x’a’x’a’x’a’x’a’x’a’x’a’x’a’x
Type ’a’x’a’x’a’x’a’x’a’x’a’x’a’x’a’x’a’x

/* 25 line feeds after return address */

Paste

PrintSetup PrintTO PSPrinter
PSPrintPrefs PageType USLetter
PSPrintPrefs Orient Wide

Print

Close FORCE

exit
```

•AC•

Please Write to:
Merrill Callaway
c/o Amazing Computing
P.O. Box 2140
Fall River, MA 02722-2140



Graduated ARexx

The ARexx COOKBOOK

NEW! ARexx Reference Disk

by Merrill Callaway

Course materials include ***The ARexx Cookbook Deluxe Two Disk Set $54.90*** *The new* ***ARexx language reference on disk in Amigaguide hypertext format $24.95,*** *or* ***both for only $64.90, postage paid!*** *Finally there is a reference to the ARexx language that non-programmers can understand! All instructions and functions are documented with copious examples, not the cryptic ones you are used to, but examples that really show how to use each feature of ARexx. The ARexx COOKBOOK is the best selling pure tutorial for ARexx . Now there is a companion reference written just as clearly!* ***WHITESTONE, 511-A Girard SE, Albuquerque, NM 87106 (505) 268-0678.*** *NOW you may phone your order and pay with* ***VISA/MC!*** *If you own The ARexx COOKBOOK, simply send in your Cookbook proof of purchase or the About the author page and get the new ARexx Reference Disk for only $10.00. Thanks!*

Circle 148 on Reader Service card.

PD UPDATE

BY HENNING VAHLENKAMP

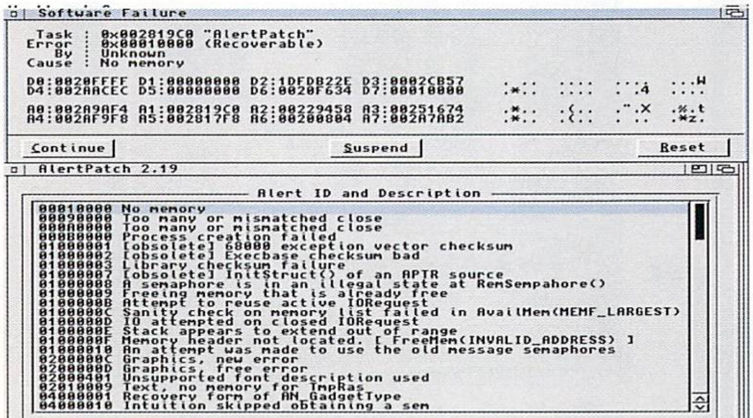
PD Update, which premiered in the January, 1993, issue of AC, has been transformed into a bimonthly feature dedicated to Amiga freely redistributable software. This includes public domain, shareware, and any other type of non-commercial software. Since AC already provides great coverage of the Fred Fish collection every month, I'll try to focus on things not in that collection. Another goal will be to cover only recent, high-quality programs that are especially useful.

The programs mentioned here are usually downloaded from Aminet (ftp.wustl.edu:pub/aminet) or FUNET (ftp.funet.fi:pub/amiga) on the Internet. They also should be available via various other sources such as online services (Portal, Delphi, etc.) or BBSs. Unless otherwise noted, they work with all Amigas and AmigaDOS 1.3 or higher.

AlertPatch 2.19 (shareware, $10)
by David Swasbrook
Aminet: util/misc/AlertPatch219.lha

While the famous or infamous gurus are now called alerts, they are still rather primitive. All too often, when an alert occurs through some sort of error, the screen goes black and a flashing box with a cryptic message appears, usually requiring a reboot. Sometimes alerts appear in a Workbench window, but they are little better.

For greater control over alerts, you may want to try *AlertPatch*. Like its name indicates, the program patches itself into the system's Alert() function. Now when an alert occurs, the normal system message is replaced with a much more meaningful one on either the usual black screen or in a window on the Workbench screen; I prefer the second one. An AlertPatch message includes not only the alert and task numbers and alert type, but also the task and routine names, a brief explanation, and the contents of the CPU registers. Furthermore, you can choose to Continue, Suspend, or Reset. Continue is advisable only if the alert is recoverable, and Suspend usually suspends failed tasks.



```
 Task : 0x002819C0 "AlertPatch"
Error : 0x00010000 (Recoverable)
   By : Unknown
Cause : No memory

D0:0020FFFF D1:00000000 D2:1DFDB22E D3:0002CB57   .... .... .... ...W
D4:002AACEC D5:00000000 D6:0020F634 D7:00010000   .*.. .... . .4 ....

A0:002A9AF4 A1:002819C0 A2:00229458 A3:00251674   .*.. .(.. .".X .%.t
A4:002AF9F8 A5:002817F8 A6:00200804 A7:002A7AB2   .*.. .(.. . .. .*z.
```

```
00010000 No memory
00090000 Too many or mismatched close
000A0000 Too many or mismatched close
000B0000 Process creation failed
01000001 [obsolete] 68000 exception vector checksum
01000002 [obsolete] Execbase checksum bad
01000003 Library checksum failure
01000007 [obsolete] InitStruct() of an APTR source
01000008 A semaphore is in an illegal state at RemSempahore()
01000009 Freeing memory that is already free
0100000B Attempt to reuse active IORequest
0100000C Sanity check on memory list failed in AvailMem(MEMF_LARGEST)
0100000D IO attempted on closed IORequest
0100000E Stack appears to extend out of range
0100000F Memory header not located. [ FreeMem(INVALID_ADDRESS) ]
01000010 An attempt was made to use the old message semaphores
0200000C Graphics, new error
0200000D Graphics, free error
02000401 Unsupported font description used
02010009 Text, no memory for TmpRas
04000001 Recovery form of AN_GadgetType
04000010 Intuition skipped obtaining a sem
```

Although AlertPatch isn't foolproof, it often can prevent alerts from crashing your Amiga—at least immediately—giving you time to save your work or allowing you to continue working. Commodore might want to consider licensing this handy patch for future AmigaDOS releases, as the Alert() function really needs improving.

MuchMore 3.6
by Christian Stiens and Fridtjof Siebert
Aminet: /text/show/muchmore36.lha

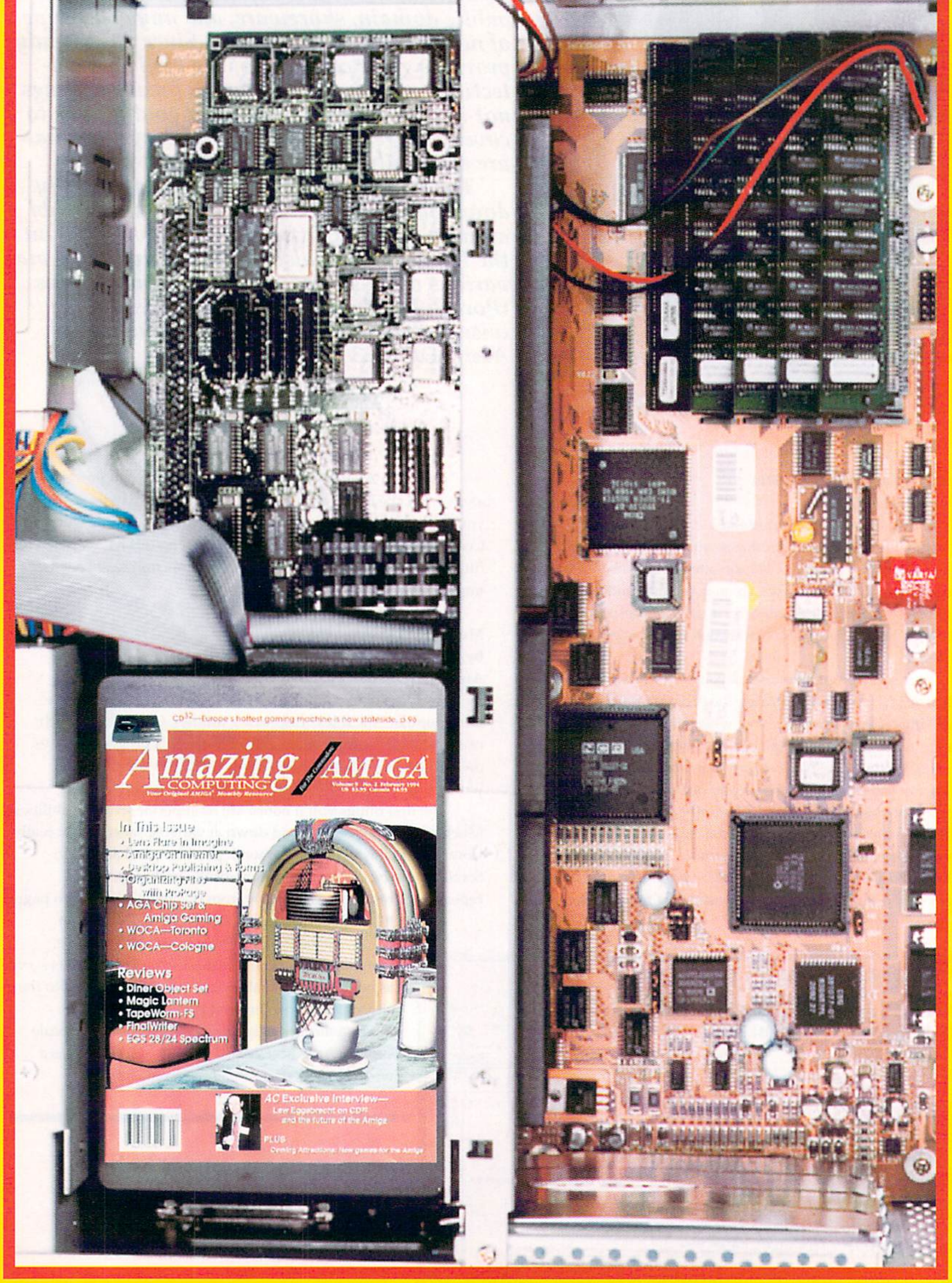
Evolving over a number of years, *MuchMore* is one of the most popular ASCII text-displaying utilities. Unlike other such programs, for example More and PPMore, this program uses its own borderless screen, so you can view full 80-column lines without distortion. And it boasts a variety of useful features.

The first things you'll notice are its superior scrolling abilities. Muchmore scrolls text up and down at variable speeds from really slow to really fast with silky smooth pixel-by-pixel accuracy. Scrolling can be done either automatically or manually—by repeatedly pressing keys to move from line to line or page to page. It's the clear winner in the scrolling department.

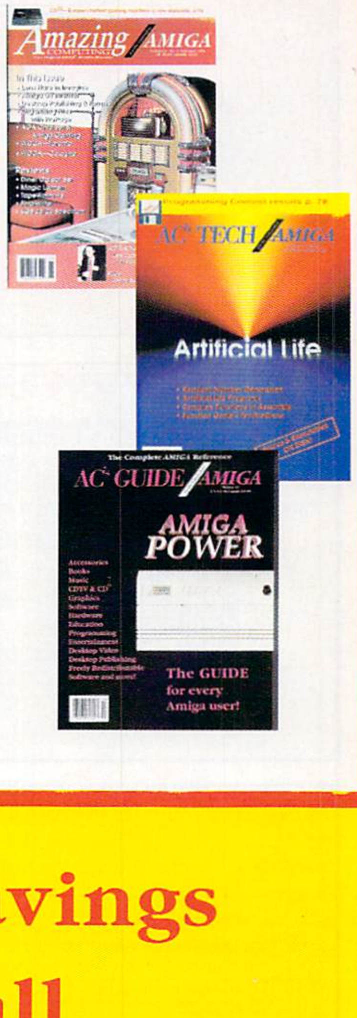
Notable extras include going to any line, searching for text, and textmarkers. Textmarkers serve as bookmarks and allow copying blocks of text to the clipboard plus saving and printing them. Such modern niceties as screenmode selection and locale support have been added recently. Muchmore is a wonderful program that I use frequently.

Left: AlertPatch 2.19 provides the user with specific information about system alerts and greater control of the system when an alert appears.

➛


CD32—Europe's hottest gaming machine is now stateside, p.96
Amazing COMPUTING
Your Original AMIGA Monthly Resource
For The Commodore
AMIGA
In This Issue
• Lens Flare in Imagine
• Amiga on Internet
• Desktop Publishing & Fonts
• Organizing Files with ProPage
• AGA Chip Set & Amiga Gaming
• WOCA—Toronto
• WOCA—Cologne
Reviews
• Diner Object Set
• Magic Lantern
• TapeWorm-FS
• FinalWriter
• EGS 28/24 Spectrum
AC Exclusive Interview—
Lew Eggebrecht on CD32 and the future of the Amiga
PLUS
Coming Attractions: New games for the Amiga

Amazing Computing is *in* to the *AMIGA*



Amazing Computing for the Commodore Amiga, AC's GUIDE, and *AC's TECH* provide you with the most comprehensive coverage of the Amiga—coverage you would expect from the longest-running monthly Amiga publication.

The pages of *Amazing Computing* bring you insights into the world of the Commodore Amiga. You'll find comprehensive reviews of Amiga products, complete coverage of all the major Amiga trade shows, and hints, tips, and tutorials on a variety of Amiga subjects such as desktop publishing, video, programming, and hardware. You'll also find a listing of the latest Fred Fish disks, monthly columns on using the CLI and working with ARexx; and you can keep up to date with new releases in "New Products and Other Neat Stuff."

AC's GUIDE to the Commodore Amiga is an indispensable catalog of all the hardware, software, public domain collections, services and information available for the Amiga. This amazing book, updated every six months, lists over 3,500 products!

AC's TECH for the Commodore Amiga provides the Amiga user with valuable insights into the inner workings of the Amiga. In-depth articles on programming and hardware enhancement are designed to help the user gain the knowledge he needs to get the most out of his machine.

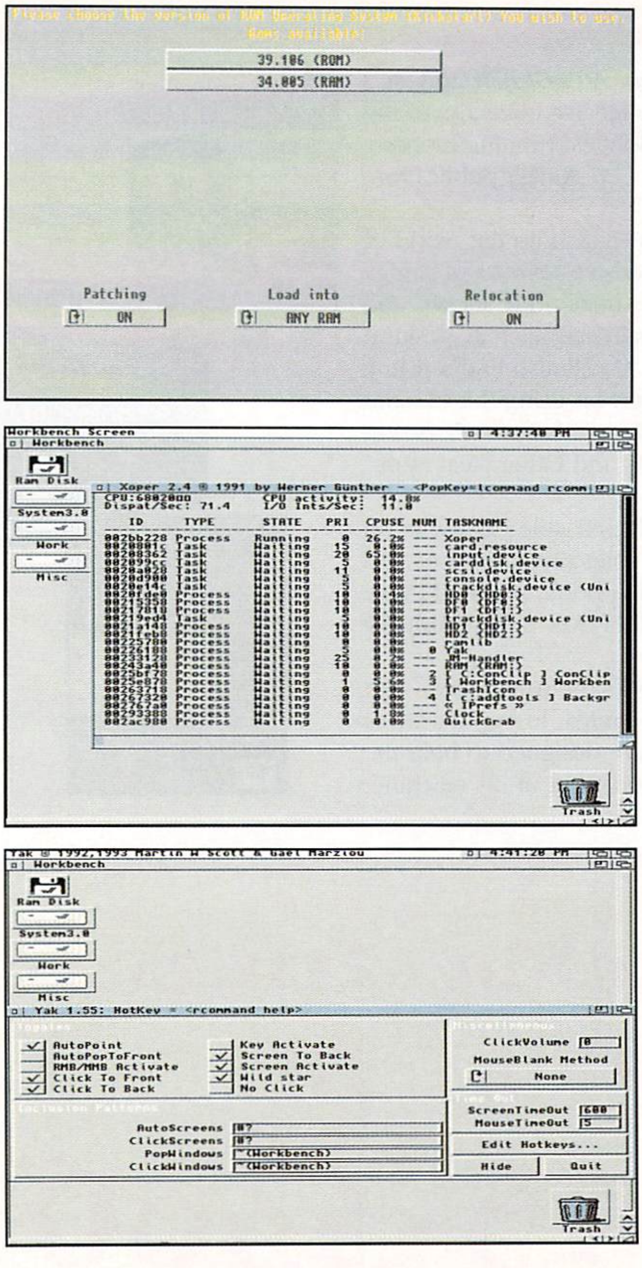
For subscription savings information, call

1-800-345-3360

SKick 3.43 (2.04+)
by Pavel Troller, SinSoft
Aminet: os20/util/skick343.lha

SKick is a great little utility to enable a Kickstart image in RAM, only requiring an Amiga with at least Kickstart 2.04 in ROM. It performs its magic with the included relocation and patch files for virtually all known Kickstarts—even special developer versions. Of course you must provide your own Kickstart files. But you can extract them painlessly from ROMs with *GrabKick* 1.1 (Fred Fish 831).

Once your Kickstart is up and running in RAM, it can survive resets and some crashes as long as the vital ExecBase structure holding the appropriate pointers isn't destroyed. Be aware that you can't use any devices not supported by your RAM-based Kickstart. For example, PCMCIA devices and IDE hard disks won't work under 1.3.



Please choose the version of ROM Operating System (Kickstart) you wish to use.
Roms available!

- 39.106 (ROM)
- 34.005 (RAM)

Patching: ON
Load into: ANY RAM
Relocation: ON

```
Xoper 2.4 © 1991 by Werner Günther - <PopKey=lcommand rcomm
CPU:68020000          CPU activity:   14.0%
Dispat/Sec:  71.4     I/O Ints/Sec:   11.0
    ID      TYPE       STATE     PRI  CPUSE NUM TASKNAME
-------------------------------------------------------------
002bb228 Process   Running     0  26.2% --- Xoper
0020801c Task      Waiting    15   0.0% --- card.resource
00208362 Task      Waiting    20  65.0% --- input.device
002099cc Task      Waiting     5   0.0% --- carddisk.device
0020a028 Task      Waiting    11   0.0% --- scsi.device
0020d900 Task      Waiting     5   0.0% --- console.device
0020e14c Task      Waiting     5   0.0% --- trackdisk.device (Uni
0020fde0 Process   Waiting    10   0.4% --- HD0 (HD0:)
00215358 Process   Waiting    10   0.0% --- DF0 (DF0:)
00217810 Process   Waiting    10   0.0% --- DF1 (DF1:)
00219ed4 Task      Waiting     5   0.0% --- trackdisk.device (Uni
0021a148 Process   Waiting    10   0.0% --- HD1 (HD1:)
0021feb0 Process   Waiting    10   0.0% --- HD2 (HD2:)
00225700 Process   Waiting     0   0.0% --- ramlib
00226100 Process   Waiting     5   0.0%   0 Yak
00233120 Process   Waiting    25   0.2% --- JM-Handler
00243a40 Process   Waiting    10   0.0% --- RAM (RAM:)
0025bf78 Process   Waiting     0   0.0%   2 [ C:ConClip ] ConClip
0025e878 Process   Waiting     1   5.6%   3 [ Workbench ] Workben
00263718 Process   Waiting     0   0.0% --- TrashIcon
00267320 Process   Waiting     0   0.0%   4 [ c:addtools ] Backgr
002767a0 Process   Waiting     0   0.0% --- « IPrefs »
00293388 Process   Waiting     0   1.0% --- Clock
002ac900 Process   Waiting     0   0.0% --- QuickGrab
```

Yak © 1992,1993 Martin W Scott & Gael Marziou
Yak 1.55: HotKey = <rcommand help>

- ☑ AutoPoint
- ☐ AutoPopToFront
- ☐ RMB/MMB Activate
- ☑ Click To Front
- ☑ Click To Back
- ☐ Key Activate
- ☑ Screen To Back
- ☑ Screen Activate
- ☑ Wild star
- ☐ No Click

ClickVolume: 0
MouseBlank Method: None
ScreenTimeOut: 600
MouseTimeOut: 5

AutoScreens: #?
ClickScreens: #?
PopWindows: ~(Workbench)
ClickWindows: ~(Workbench)

From top to bottom: SKick 3.43, Xoper 2.4, and Yak 1.56.

If you're a novice user confused by the above two paragraphs, then you'll be even more confused by the somewhat technical documentation. Nevertheless, SKick is worth figuring out, as it is especially valuable for AGA Amiga gamers who want to run those older 1.3-only games, but can't use ROM switchers. With SKick, I even managed to run Workbench 1.3 from my Amiga 1200.

Xoper 2.4
by Werner Gunther
Aminet: util/moni/xoper24.lha

If you've ever wanted to know what's going on in the operating system when your Amiga is running, then *Xoper* is the utility for you. This system monitor provides an enormous amount of information useful for programmers or just the inquisitive.

The interface looks like a text window with a command line at the bottom. From the command line, featuring a command history like the shell, you can execute any of Xoper's 90+ commands. Most commands display information lists such as tasks, libraries, devices, interrupts, ports, locks, semaphores, resources, and so on. Other commands dynamically track CPU and memory usage, etc. Power users will appreciate being able to change the priority of anything with a priority number (not just CLI tasks), close windows and screens, kill tasks, view task structures, etc. Directly modifying the system may lead to crashes or alerts if you don't know what you're doing.

I could go on and on about Xoper's functions, but I think you get the idea. In short, this is the most comprehensive system monitor I have seen for the Amiga, despite its rudimentary interface.

Yak 1.56 (2.04+)
by Martin W. Scott and Gaël Marziou
Aminet: os20/cdity/yak155.lha

The standard AmigaDOS commodity programs certainly are useful, but each one performs very limited functions. Instead of bothering with a handful of single-purpose commodities, a multipurpose commodity such as *Yak* (Yet Another Kommodity) is a lot more efficient. Yak combines the functions of AutoPoint, Blanker, ClickToFront, FKey, and MouseBlanker. NoCapsLock, the only one it doesn't replace, should be added in a future release.

Like any other commodity, Yak runs in the background and shows its interface when summoned by a hotkey. The attractive 2.0-style interface window allows you to set any of its options and use them for the current session or save them to the S: directory. Besides replacing the standard commodities, Yak adds extras that are neglected by the operating system. There's a "ClickToBack" function, wild star activate (use an "*" for "#?" in the shell), key click, no click for floppy drives, and other possible hotkey assignments such as closing windows and blanking the display whenever you want.

Of all the multipurpose commodities I have tried, Yak remains my favorite. This excellent program is small and clean, not throwing in a bunch of worthless functions just for the sake of having them.

•AC•

Please Write to:
Henning Vahlenkamp
c/o Amazing Computing
P.O. Box 2140
Fall River, MA 02722-2140

Roomers

by The Bandito

[These statements and projections presented in "Roomers" are rumors in the purest sense. The bits of information are gathered by a third-party source from whispers inside the industry. At press time, these rumors remain unconfirmed and are printed for entertainment value only. Accordingly, the staff and associates of Amazing Computing *cannot be held responsible for the reports made in this column.]*

Commodore Update

Well, as usual, Commodore is trying to avoid having an unruly annual meeting by having a secret annual meeting. No proxy notices will be sent out, so unless you can find the meeting and attend in person, you won't be voting. Where is the meeting? Offshore, as usual. Commodore can get away with these shenanigans because it's not a U.S. corporation, even though it's traded on the New York Stock Exchange. The SEC can't regulate it as strictly as it does U.S.-based corporations. So the Commodore Shareholder's Movement has been adroitly sidetracked, and messy questions of corporate accountability will not be raised at the annual meeting.

In the Bandito's opinion, the annual meeting will probably be a nice, quiet affair, punctuated by the gentle sounds of rubber stamping on executive compensation approvals, followed by a few rounds of golf at the local club. The Amiga? What's that? Oh, right, we sell those, don't we? How are those selling, anyway?

No Bankruptcy in Sight

Some people have raised the question of Commodore entering bankruptcy proceedings because of its financial problems in the past year. Well, that scenario looks unlikely, since Commodore's been posting some strong sales in Europe, expenses have been cut way back, and they've managed to reach agreements with their major creditors.

Bankruptcy is something that your creditors force you into when they feel it's in their best interest, or the company itself feels that bankruptcy is the best way for them to restructure. Commodore has managed to restructure without bankruptcy, which is a good thing; when you enter bankruptcy, you lose a great deal of control over your own destiny. The courts take a hand, and that's like playing the lottery. You never know just what number might come up.

What would happen to Commodore in a bankruptcy? Bankruptcy proceedings, assuming Chapter 11 is filed, would attempt to restructure Commodore's debt and continue the business under a repayment plan, and often a court-appointed management team. Creditors would get some of what's owed to them, but not very much. (Still, that's better than absolutely nothing.) Some portions of the company might be sold, or even the entire company could be sold if the court feels that's the best course of action. Since this scenario does not seem likely, Amiga users can breathe a bit deeper now.

Commodore for Sale?

No, to the best of The Bandito's data flow, Commodore is not actively being shopped around. Occasionally, some companies express interest in Commodore, but no serious talks have been held or are contemplated. But that doesn't keep the speculation down. Who would be a good partner for Commodore? The usual suspects are Sony, H-P, NEC, Toshiba, Sanyo, or even Goldstar. Sony would be an excellent fit; they have a strong line of video equipment, as well as consumer electronics and software (Columbia Pictures, for instance). Commodore would give them a strong presence in video computing, with a potential way to edge into desktop business computers. And Sony would get a competitive game machine, which they've wanted to have for a long time. But, Sony has been moving ahead on their own 64-bit video game machine with CD-ROM; they expect to have that out in 1994. So perhaps Commodore is off their shopping list now.

Hewlett-Packard and Commodore

The Bandito has heard about H-P and Commodore talks for years, but according to some of The Bandito's spies, there's actually something real happening. A deal between Hewlett-Packard and Commodore has been reported in an electronics industry magazine, *Electronics Engineering Times*. Apparently, H-P has been talking to Commodore about licensing AGA chips for set-top boxes, an area that H-P wants dearly to get into. You see, H-P is trying to diversify, and they've been investing heavily in interactive television. Now they are looking at putting together a box that would act as a control center for interactive cable. This box would have to have high-quality graphics capability as well as some reasonable computing horsepower. Commodore has been eager to license their technology for quite awhile; after all, that's just more revenue, which they can certainly use right now.

So apparently the two companies have found a mutually beneficial arrangement. At least, that's what Commodore is

Killer Graphics
A Complete Graphics-for-Video Training Course
featuring
D.C.T.V.® and BRILLIANCE™
from DIGITAL CREATIONS

DCTV® - A 3-VOLUME VIDEO SERIES
Learn to create dramatic logos and free hand art; learn to output 3D animations to videotape without single frame recorders; and learn to create graphics for Special Event videos using DCTV's Digitizer.
BRILLIANCE™-A 3-VOLUME VIDEO SERIES
Learn to paint and create graphics in the new modes supported by AGA Amigas; learn to create and animate complex logos in less than 1 hour; and learn to paint and animate with tips and tricks used by working professionals.

EACH THREE-VOLUME SERIES IS ONLY
MasterCard **$68.95** plus $5.00 S&H VISA

1-800-325-5399
HORIZON WEST PRODUCTIONS

Circle 123 on Reader Service card.

SELF IMPROVEMENT SOFTWARE
BrainTrain 3.0
Our unique brainwave synchronization tool is now better than ever, with new aural matrix tone controls, 6 dynamic entrainment screens, built in vocal suggestion modules, and an easily configurable Voice. If you have been searching for a really effective auto-hypnosis and sleep inducing system, try BrainTrain.

(For all Amigas)

BT-1 Dream Control, Memory, Success, Exercise
BT-2 Stop Smoking, Creativity, Relaxation, Sleep
BT-3 Weight, Stress, Relationships, Procrastination
$49.95 each plus $2.00 each shipping

Free brochure upon request.

InSpiral Technologies.
P.O. Box 166 - Cottage Grove - MN 55016
715-273-6180

Circle 166 on Reader Service card.

AMIGA REPAIR SERVICES
** 24 HOUR TURNAROUND **
A 1 year warranty • Factory Trained Technicians and the lowest prices in the USA
A2000 CALL* A500 CALL*
FACTORY AUTHORIZED SERVICE CENTER
For A1000 ,A3000 And Monitors call
•Amiga 1200 • GVP A1230 • Turbo MBX1200•
Lowest Prices in the USA Call
Get on our mailing list. You will receive our free news letter with service tips and great deals on hardware and accesories . Send us your name and address or circle the reader service number
1-800 967 1073
J & C Repair
RD 2 BOX 9 Rockton Pa. 15856
PA residents ad 6% *call for details

Circle 165 on Reader Service card.

saying; H-P is refusing to comment at this point, which sounds a little odd. No details yet, but The Bandito's spies are investigating. Of course, these sorts of technology deals are always tricky, and often they end up never being actually signed for some reason or other. Or, even if H-P likes Commodore's chips right now, they may decide not to use them; or H-P might even abandon the whole idea of a set-top box if their corporate strategy changes. Don't count the sale until the money's in the bank.

Say, maybe H-P would want to swallow the whole company instead of just licensing some chip technology. The Bandito thinks it's unlikely, but you never know. Keep your sensory receptors tuned to this wavelength.

But the truth is, Commodore is unlikely to be sold right now. Irving could have unloaded the company many times in the past, but chose not to, for whatever reason. Now, despite Commodore's financial problems recently, things are starting to look better. While overall sales are way down, the company should return to profitability soon. It's a much smaller company, but a profitable small company is much nicer to have than a big company hemorrhaging money. And if Irving can make his salary secure, he'll probably stick with the company. Besides, you don't want to sell the company when its value is pathetically low; if you want to cash in, sell when the company is doing really well. Irving can get a better deal if he can put the company back on its financial feet.

Corrective Lenses for Commodore

Why has Commodore had such problems for the last several years? Here's The Bandito's answer: a lack of long-term vision. Commodore has failed to articulate (or, indeed, to come up with) a long-term mission for the company. Commodore's idea of long term is the next fiscal quarter. They've jumped on CD^{32} and are pushing it hard. The Bandito believes this is the right move for the wrong reasons. Mehdi Ali has championed the product, not because he has a long-term vision of what CD^{32} can do for Commodore and the industry, but because he saw it as the best way to make money in the short term. The Bandito wonders what this will mean for CD^{32} if some other new technology looks attractive next year...does CD^{32} get lost in the shuffle? That seems to be what's happened to the Amiga line lately. All the attention and effort is going into CD^{32}, and the Amiga line is relatively static. Even development on peripherals has stopped or is being sold off to other companies. Yes, work continues on the AAA chips and on new Amigas, but the pace is very slow. Why? Not enough engineers; most of those who are left are working on CD^{32} related projects.

[Editor's note: Last issue, AC *quoted Lew Eggebrecht, vice president of engineering at CBM, as giving priority to both the AAA chip set and increasing the engineering staff.]*

CD-ROM Mania

Looks like everyone is jumping on the CD-ROM bandwagon. Now Blockbuster is renting various CD-ROM titles and players. They'll rent you a Sega CD, 3DO, or CD-i (it's now lower case, by the way; maybe they've realized the hardware isn't good enough for upper-case any more) for $15 for three days. You can rent titles for all of these machines, and you can rent IBM or Mac CD-ROM titles, too. So where's CD^{32} in all of this? Left out, apparently. Could it have something to do with the fact that Phillips owns 25% of Blockbuster? Maybe, but The Bandito expects Commodore to try and get CD^{32} into this program once the machines have been shipping in the U.S. for a while.

Meanwhile, that upstart company MediaVision has said they're developing a set-top box for 1995. MediaVision makes sounds boards and multimedia stuff for PCs; they've also started their own line of CD-ROM software, too. And now they've decided to jump into the box business, too. Well, good luck, folks. You'll only be facing half a dozen of the largest manufacturers in the world.

And there's some good news for CD^{32}: apparently Commodore has finally reached a deal with Kodak to allow CD^{32} players to officially read Photo CD discs. Of course, this might be more meaningful if Photo CD ever becomes a success, which looks a little unlikely right now. Sure, anyone who's into desktop publishing thinks Photo CD is just ducky; you get hi-res scans for about a dollar apiece. Great news for fans of *ProPage* or *PageStream*, once Commodore comes out with the new CD-ROM add-on for the A4000 and A1200 computers. (When? Oh, expect it by this summer, and you won't be too far off.)

Lew Spills Beans

Lew Eggebrecht gave the Keynote address at the Toronto World of Commodore show, and in the process he revealed a number of interesting factoids. Of course, regular Lew watchers know that you have to put his remarks in the proper perspective, and that decisions made on a higher level in Commodore may well affect what he says. Still, though, his speech made for interesting listening, and the crowd certainly enjoyed it.

As Lew tells it, the MPEG modules for CD^{32} to play full motion video are now in production, which means you should be seeing them available by the time you read this article. Of course, The Bandito expects that the first few modules will no doubt go to Europe rather than the U.S., because that's where the majority of the CD^{32}s are. It will take a while for CD^{32} sales in North America to gain whatever momentum they will attain, which means that CD^{32} add-ons are going to be headed first to Europe.

Next on Commodore engineering's hit parade is the cost reduction project of CD^{32}. Obviously, competition is already fierce and is just going to get fiercer, so they need to get the price of CD^{32} as low as possible. This means reducing the parts count on the motherboard and looking for greater integration of components. Unfortunately, it could also mean leaving out some features; The Bandito hears that engineering is considering removing the expansion connector. Hopefully, though, this is just a theoretical exercise, and Commodore won't decide to cripple their future add-on market.

After making CD^{32} less expensive to manufacture, Commodore engineers will return to getting the AAA chips finished. Lew claims the first chips worked pretty good; they're 95% functional right now, already moving 24-bit images around faster than the AGA chips handle HAM8. The AAA chips may be ready for production as early as March. Of course, that begs the question of what system the AAA chips are going into. Just because the chips are ready doesn't mean the computer is ready for them. You can't just stuff them into an A4000 and expect them to work. There's an awful lot of software support that still needs to be done. Not to mention designing a whole new computer system around those chips.

The Bandito hears that some optimists believe we'll see an AAA Amiga this year. However, it sure seems as though 1995 is a more likely target for a complete AAA computer. Maybe by that time the system will be designed around a 68060 chip, and we'll actually get a DSP on the motherboard, and SCSI II, to boot.

Actually, Lew said some interesting things about future architectures. Commodore will support the emerging PCI bus standard, which is being pushed heavily by Intel as the new standard to replace the slow, stupid busses on PC clones. So far, they've garnered limited support among PC manufacturers, though Apple has said they will support PCI on future PowerPC Macintoshes. So it seems like we can kiss Zorro goodbye for the next generation of Amigas, and we'll be able to handle industry standard add-on cards—assuming that someone writes Amiga drivers for them, that is. But PCI should be just as easy to use as Zorro; no stupid DIP switches to set like on current PC clone boards.

Atari Runs Low on Hype Supplies

Atari bled money in rivers during the third quarter, despite (or perhaps because of) the introduction of the Jaguar. Atari said while it expects the Jaguar to pull it out of the red, it doesn't expect to be profitable until 1994 when it says it will ship half a million Jaguars.

Atari had net losses of $17.6 million, or $0.31 per share, on net sales of $4.4 million, compared to the $1.9 million profit reported on $34.5 million in the same quarter last year. This means another quarter of losses for Atari, who reported a net loss of $6.6 million, or $0.12 per share) on net sales of $5.7 million in the second quarter 1993. Gee, these numbers make Commodore look like a financial superstar. Let's see, sales of $4.4 million a quarter times four quarters...heck, Atari is smaller than most software companies!

Atari said the write-offs are on about $7.5 million of its unsellable Atari ST inventory, as well as write-offs of older video game products. Atari's also had to spend $6.4 million to close down its Australian operations, cut staff with a fire ax, and take a bath on real estate in Europe. Hey it could be worse; they could be Euro Disney.

So Atari's been on a real roller coaster ride lately with its stock price; they've gone from about 75 cents to $15 and are now headed back to under a buck. Boy, somebody sure made a few dollars on stocks there, didn't they?

Of course, the hype machine fizzled when it turned out that Atari couldn't ship very many machines, regardless of what the demand turned out to be. Atari initially expected to ship out 50,000 machines before the end of 1993, but they managed to get out fewer than 20,000 units. There's no data on how many they actually sold.

But of course Sam Tramiel (president of Atari) still talks a good year. He believes that Atari will sell 500,000 Jaguars in 1994. But even Sam had to admit that number depended on a few little things, like market acceptance of the Jaguar, the availability of

The Memory Location
New England's #1 Amiga Dealer!
Commodore AMIGA

Come in and experience the new
AMIGA 4000 and the **Video Toaster!**

We have the largest selection of ***AMIGA*** hardware and software in stock and on display in New England! We are also New England's largest Commodore authorized full-service repair center, with a knowledgeable and experienced in-house service staff.

Satisfaction guaranteed!

396 Washington Street, Wellesley, MA 02181
(617) 237-6846 Voice • (617) 237-9525 Fax
Pure *AMIGA* since 1985!

Circle 103 on Reader Service card.

HIRED GUNS JOYPORT ADAPTER

Play 4 gamers at a time with our fabulous adapter. Plugs into your printer port and allows 2 more standard Amiga joysticks to join in on the fun !
Only $19.95US + $3.00 S&H.
Sorry, no CODs. Allow 2-3 weeks for delivery
Dealer inquiries welcome !
Send cheque or money order to :

Proton Palace BBS
Box 23149, Ottawa
Ontario, Canada
K2A 4E2
Voice 613 596 0668 BBS 613 829 0909

Circle 115 on Reader Service card.

Introducing
Scientific Amigan
A monthly* newsletter for scientists and engineers

Articles and software to enhance research, analysis, and design with the Amiga. Two disks with subscription: $39 domestic, add $10 for foreign delivery.

Dept. AZ
POB 60685
Savannah, GA 31420-0685

* Combined January/February Edition

Circle 112 on Reader Service card.

AGA+M2

Armadillo Computing and Aglet Software are proud to announce the long-awaited

Workbench 3 Modula-2 Interface

Benchmark WB3 offers all Workbench 3 functions, including **AGA Support**, **AREXX**, **GadTools**: instant gadgets and menus, **BOOPSI**: object-oriented Intuition, **ASL**: standard requesters, **IEEE Math**, **IFFParse**: easy IFF access, and **Example Programs**.

Benchmark WB3 is available for our special introductory price of only $125. WB2 users can upgrade to WB3 for only $25.

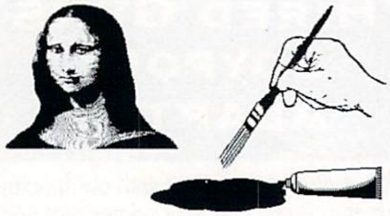
We're offering special discounts on upgrades to Benchmark for other Modula-2 users. Call or write for our free catalog.

Money-back guarantee on all Armadillo Computing products.

Armadillo Computing

5225 Marymount Drive, Austin, Texas 78723
Phone/Fax: 512/926-0360 Internet: jolinger@bix.com
MasterCard and Visa accepted

Turbo Pascal - Only Better



DREAMWORKS VIDEO PRODUCTIONS
Presents The *New VOLUME 2.3 of*
THE GUIDE TO
ART DEPARTMENT PRO 2.+
Video Tutorial Series

Featuring - Toaster Framestores, AREXX powertools, FRED's new powertools, PROControl, Anim 5/8 manipulation, SimPrint, printed transcript & Lots more! $29.95

Volume 1 Tutorials feature color pallette manipulation, image compositing, Text Visual Operations, Tile Visual Operations, Scaling, FRED & More. $29.95

$39.95 each or $49.95 for both (includes shipping 2 day mail)
Call for shipping rates outside U.S.
Free Gifts with each order. Add $10.00 for C.O.D.'s

To order call 1-800-453-8308 anytime
To receive a FREE information packet
call anytime 602-893-3988

or write to:
Amazing Art Pro
5037 East Keresan
Phoenix, Arizona 85044
Visa, Mastercard, C.O.D's, checks, and money orders welcome.
Please allow 2-3 weeks for check orders.
Please make payments payable to DreamWorks.

Circle 151 on Reader Service card.

parts to build the units, and the transition to volume production. Atari claims to have cash reserves of $34 million, which they said is down only $1 million from the $35 million it had on June 30, 1993. Seems kind of strange that you can lose $17 million in a quarter but lose only $1 million from your bank account, but maybe The Bandito just doesn't understand corporate finances. Maybe it makes a difference if you do your company books on an Atari ST.

Anyway, Atari still isn't saying when the CD-ROM portion of the Jaguar will actually arrive. The Bandito thinks that this may never see the marketplace, if Jaguar sales don't pick up substantially. The year 1994 may mark when we finally bid adieu to Atari, the Incredible Shrinking Company. But what will the Tramiel boys do for a living then? Maybe Jack will have to find them a new company to run. Say, Jack, there's this company who's lost a lot of money recently, so their stock price is really low...

Commodore: The Expensive Computer

Get this, Amiga fans: the Macintosh is now cheaper than an Amiga 4000. That's right, a 68040-based Macintosh is cheaper than a 68030-based A4000-030, and let's not even compare the A4000-040. Will Commodore lower prices to compete? Perhaps some, because they've done a cost-reduced version of the A4000 motherboard, but they probably won't lower prices that much considering their current fiscal situation. Commodore figures that anybody who really wants or needs an Amiga will pay the premium. They aren't going to use price as an incentive to lure new buyers. Unfortunately, Commodore may find that they're losing Amiga loyalists to less expensive Macintoshes. Sure, the operating system's not as powerful, but there's lots of software to choose from, and plenty of peripherals. If you want a graphics accelerator for the Mac to match your Amiga's blitter, those are available for extra $$$. How low have Macs gone? Well, you can get a 20MHz 68040 Mac with 4MB of RAM and an 80MB hard drive for about $900 these days, sans monitor and keyboard. That's pretty durn low.

While the A4000 looks pretty expensive, the A1200 is a bargain these days. Throw in a low-cost IDE hard drive and you can get yourself a complete system, with monitor, for around $700. You still can't do that with a Macintosh. And PC clones at equivalent power run a couple of hundred dollars more. What's still missing, of course, is software compatibility with the rest of the world. Sure, if you want to work at it, you can translate (imperfectly) wordprocessing and spreadsheets into and out of your Amiga. Sometimes it will work great, sometimes it won't. There's a business opportunity for someone who can make it transparent to the user, thus making an Amiga seem like an easy and fun way to take your work home from the office.

Cost reductions on the CD32 motherboard may lead to even further cost reductions for the A1200. Or Commodore could decide to make CD32 its low-end computer choice, by offering the keyboard/mouse/floppy add-on package they've been contemplating. The Bandito hears that one of the choices considered in the redesign of the CD32 motherboard was the ability to drop in a 68030 instead of a 68020, or even a 68040 chip (probably one of those without a math unit, to save money). Commodore is anticipating that 680x0 prices will drop sharply when Apple starts buying PowerPC chips, instead; Motorola may be left with a glut of chips. Which could mean more power for low-end Amigas at even lower prices than we have now. Though if Motorola cuts back on 680x0 production, prices could be driven higher eventually. Commodore should try to lock in a long-term price now.

•AC•

ArtScope Industries
Presents
The Brownstone House
A collection of 3-D objects in Imagine format

Recently Renovated three story Brownstone House comes complete with plaster walls. Two fireplaces, Bay window, full moldings, Decorative archways, columns and more!

Furnished Kitchen, Bathroom, Livingroom, Diningroom, Bedroom, Doors & Stairways.

Includes furniture, appliances, cabinets, rugs, countertops, fixtures, lamps, paintings, etc.

Ready to move in. Virtually.

Lots of objects, fully colored & textured.

Send check or money order for $49.99 to:

ArtScope Industries
353 17th Street
BKLYN NY 11215
(718) 965-3492

Circle 117 on Reader Service card.

PSST!

Do you know of any rumors, gossip, scuttlebutt, or just plain dirt? If so, become a professional tattletale and pass these tidbits on to:

The Bandito
c/o Amazing Computing
P.O. Box 2140
Fall River, MA 02722-2140

Special Offer for AC Readers!

AMOS (US), AMOS Compiler, and AMOS 3D

all three for only $99.99*

Bring your Amiga to *Life!*

AMOS - The Creator is like nothing you've ever seen before on the Amiga. If you want to harness the hidden power of your Amiga, then AMOS is for you!
AMOS Basic is a sophisticated development language with more than 500 different commands to produce the results you want with the minimum of effort. This special version of AMOS has been created to perfectly meet the needs of American Amiga owners. It includes clearer and brighter graphics than ever before, and a specially adapted screen size (NTSC).

"Whether you are a budding Amiga programmer who wants to create fancy graphics without weeks of typing, or a seasoned veteran who wants to build a graphic user interface with the minimum of fuss and link with C routines, AMOS is ideal for you." *Amazing Computing, June 1992*

HERE ARE JUST SOME OF THE ▼ THINGS YOU CAN DO ▼

- Define and animate hardware and software sprites (bobs) with lightning speed.
- Display up to eight screens on your TV at once - each with its own color palette and resolution (including HAM, interlace, half-brite and dual playfield modes).
- Scroll a screen with ease. Create multi-level parallax scrolling by overlapping different screens - perfect for scrolling shoot-em-ups.
- Use the unique AMOS Animation Language to create complex animation sequences for sprites, bobs or screens which work on interrupt.
- Play Soundtracker, Sonix or GMC (Games Music Creator) tunes or IFF samples on interrupt to bring your programs vividly to life.
- Use commands like RAINBOW and COPPER MOVE to create fabulous color bars like the very best demos.
- Transfer STOS programs to your Amiga and quickly get them working like the original.
- Use AMOS on any Amiga from an A500 with a single drive to the very latest model with hard disk.

WHAT YOU GET!

AMOS (US)—AMOS BASIC, sprite editor, Magic Forest and Amosteroids arcade games, Castle AMOS graphical adventure, Number Leap educational game, 400-page manual with more than 80 example programs on disk, sample tunes, sprite files, and registration card.
AMOS Compiler—AMOS Compiler, AMOS language updater, AMOS Assembler, eight demonstration programs which show off the power of the compiler, and a comprehensive, easy-to-use manual to develop lightning fast software.
AMOS 3D—Object Modeler, 30 new AMOS commands, and more. AMOS 3D allows you to create 3D animations as fast as 16 to 25 frames per second. You can display up to 20 objects at once, mix 3D with other AMOS features such as sprites, bobs, plus backgrounds, and more.

Limited Time Offer for AC readers only!

Get all three AMOS packages at one great price. Order today by sending your name, address (physical address please—all orders will be shipped by UPS), and $99.99 (*plus $10.00 for Shipping and handling) to: AMOS Special, PiM Publications, Inc., P.O. Box 2140, Fall River, MA 02722-2140 or use your VISA, MasterCard, or Discover and fax 1-508-675-6002 or call toll free in the US or Canada:

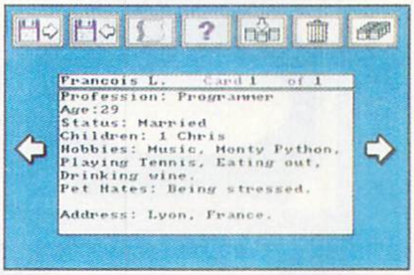
1-800-345-3360

europress SOFTWARE

Please allow 4 to 6 weeks for delivery.
AMOS written by François Lionet.
©1992 Mandarin/Jawx
Country of Origin: UK

Circle 134 on Reader Service card.

Use the sophisticated editor to design your creations


Francois L. Card 1 of 1
Profession: Programmer
Age:29
Status: Married
Children: 1 Chris
Hobbies: Music, Monty Python,
Playing Tennis, Eating out,
Drinking wine.
Pet Hates: Being stressed.

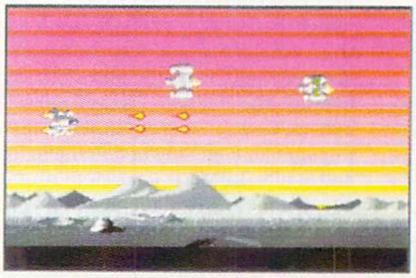
Address: Lyon, France.

Create serious software like Dataflex

Produce educational programs with ease

Play Magic Forest and see just what AMOS can do!

Design sprites using the powerful Sprite Editor


Create breathtaking graphical effects as never before

Digital Image Special F/X

Part V: Embossing

by William Frawley

In this, the fifth in a series of articles describing tips and techniques for manipulating images using special effects, we'll learn the art of properly pressing an image into a background texture, with the aid of Alpha transparency channels, for an elegant, soft-edged look. With a much more thorough approach and a slightly different emphasis than that covered in *Art Department Professional*'s manual, I'll be demonstrating the technique using the ever-popular image processing software with the aid of *PageStream* for producing super-bitmap logos or design elements, which although not quite considered paint software, nonetheless does have the ability to "print" its layouts as a graphic IFF suitable for our needs. And for those who have taken up the craft, you'll witness the beauty of this process fully automated in the accompanying ARexx script.

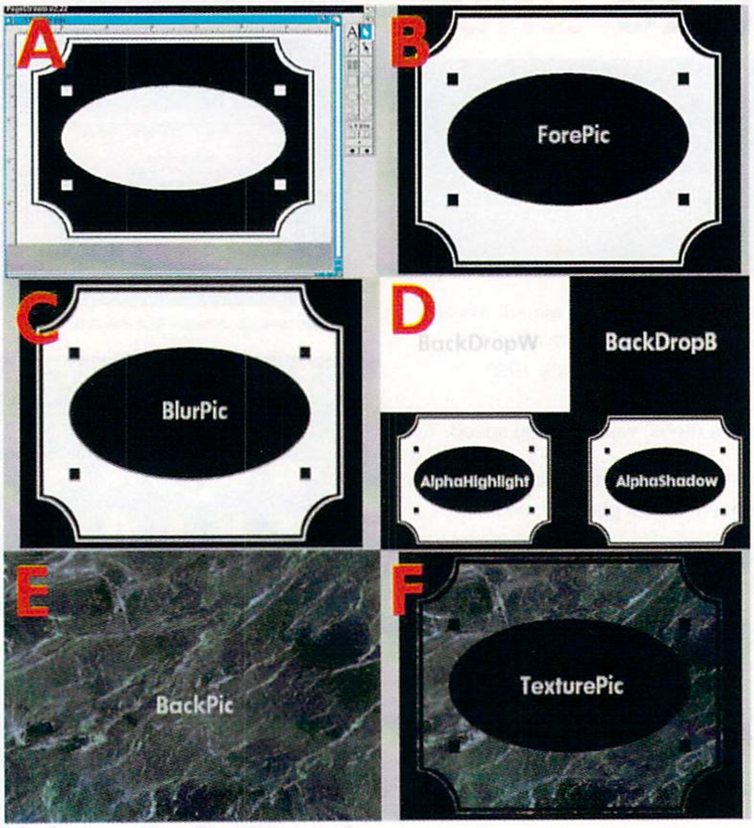


Figure 1

PageStream Super-Bitmaps

To begin any embossing, you obviously need something to emboss, and for this type of work, we'll need to create a two-color, black-and-white image of simple design. This design can be anything from logos to borders to headline text. For our tutorial here, we'll easily create a modest design element that can be used later as a photo vignette border (Figures 1-3). For your own embossing projects in the future, I would suggest that you use subject matter that is not too busy because the detail will probably be obscured in the end.

Why have we chosen PageStream to create our design? Well, it is much easier to compose a piece destined for high-resolution print output in a page layout program. One can then be afforded the option of producing super-bitmaps to reduce the jaggie effect rather than using a paint program for the same task. Considering the nature of the emboss process, one can see that structured drawing tools are better suited for creating design elements, not to mention the ability to access the hundreds of PostScript fonts available within this application software. And, as previously mentioned, PageStream does have the ability to output a black-and-white ILBM via its custom printer driver, with dimensions suitable for any desktop publishing or image processing project. Of course, if large bitmaps aren't a priority and you don't have PageStream or its equivalent, you may simply use a paint program like *DeluxePaint*. Though lacking tools like Bezier curves, it does allow you to alter the page size to produce super-bitmaps.

Assuming you have PageStream running, open a new document with a user size of 4.9" wide by 3.2" tall, which when "printed" as an IFF will yield an image with the same aspect ratio as a hires-interlaced screen, approximately 736 x 480 pixels if printed at the 150,150 dpi density or 1472 x 960 pixels if printed at the maximum 300,300 dpi density setting. Of course, if you really needed some hires output, an 8.5" x 11" page printed at PageStream's maximum density for bitmaps would produce a bitmap graphic with dimensions of 2550 x 3300 pixels.

For the remainder of this tutorial however, I'll not assume anything about your available memory and present the material so as to allow you to choose sizes for images that work with your own system configuration. But if you have a configuration similar to mine, that is an A3000 with 10MB of RAM, feel free to change the size to 7" x 5" as I did (Figure 1A). This will yield an image 1050 x 750 pixels at 150,150 dpi and give you some practice at working with larger images.

Now select the polygon tool and draw out a shape similar to that in Figure1A using a combination of straight lines and Bezier curves. Choose the pointer tool and Copy this new element. Enter the menu Object-Line Style and change the line width to seven points. Make sure your grid is set to around six points and locked, select Paste from the Edit menu, and then click and drag out a

Using PageStream, ADPro and ARexx to Automatically Process Images

duplicate form that fits snugly inside the first copy as shown in Figure1A. Click on the Pointer tool again and select this new copy. This time, choose the menu item Object-Fill Style and fill with black. Now refer to Figure1A again for an example of the detailing that should be added next, the small white squares and the large white oval in the center, for example. I'm confident that you know how to add these without instruction.

With our design complete, change the printer driver to "IFFILBM.printer" in the Configure Printer requester accessed from the Global menu, assuming you have the driver installed in the proper directory for PageStream printer drivers. Exit this and enter the Print Document requester via the File-Print menu. Select 150,150 for the print density and print. When the file requester appears, select an appropriate directory to store this and name the file something like "Border.ilbm." Wait for the print process to finish and then exit PageStream. You now have your black-and-white foreground image. Now for the fun part.

Outward Embossing

Before we begin the outward embossing process, you'll need to choose a background texture that you feel is the most appropriate for the task. Personally, I've always taken a liking to marbles, but the sky's the limit here. Even if you don't yet posses a 24-bit display device, using a 24-bit texture now will yield the best results in the end as ADPro will maintain all the full-color information throughout the entire process. Besides, ADPro has some of the best dithering routines available for converting a full-color image to Amiga's ECS screen display, and if you have an AGA machine, you're even better off, or so I'm told. With that in mind, if you're using a hard drive, copy this texture to the same directory as your foreground pic. This is not mandatory, but it will expedite the process down the road.

To begin, this process requires that the foreground image be smaller than or equal to the background texture's dimensions, so if you haven't done so already, run ADPro and load both of the aforementioned images, noting their respective dimensions. If the sizes don't meet the conditions just mentioned, you'll need to do some scaling. If you'd prefer to maintain the foreground's high resolution, then scale the background slightly larger than this one and resave as "NewBackPic" (Figure 1E). Otherwise, if you can't afford to increase the background's size for various reasons, scale down the foreground image and resave as "NewForePic." Before you try this, please note: As of ADPro V2.1.3, there is a bug/problem when using the "Negative" operator after scaling a one-bit-plane image. The result is a whacked-out deformity where every line alternates color with its counterpart in both the Color0 and Color1 registers. So, for reasons that will soon be revealed, if you need to scale the two-color foreground image, use the operator Negative first and then scale. Alas, but something else happens after scaling. Depending on the size of the image, scaling may alter the original colors of the image, so if what was once a pure black(0,0,0) and white(255,255,255) bitmap, may now have in color registers 0 and 1 (3,3,3) and (249,249,249), respectively. To solve this, after we have scaled the foreground image, enter the Palette Control requester and edit the palette to return color registers 0 and 1 back to pure black(0,0,0) and pure white(255,255,255), respectively. Now Lock the palette and accept this requester. Make sure the original Screen Controls are chosen, in this case, Hi Res Lace two-color, and Execute to re-render our foreground ILBM. Now save this as "NegForePic" (Figure 1B). Otherwise, if no scaling was necessary, just use the Negative operator, re-render and then save as "NegForePic." The result is now the first stage of our soon-to-be Highlight and Shadow Alpha channels.

Blurring the Negative

Next, we need to blur this negative of our foreground image approximately eight times. The amount of blurring is contingent upon the size of the image, more for larger images, less for smaller ones. Either use the Blur operator at its default settings, or the Convolve operator with the "Blur5x5" loaded at its defaults. Save this resulting image as an IFF, 8 bit-plane Data with the name "BlurPic." This image forms the basis of the two Alpha channel masks that will need to be created next for the raised highlight and shadow elements of the final embossed image (Figure1C). We blur it to impart soft edges to the eventual highlights and shadows.

Now to create the worker bees of the entire emboss project, load a BackDrop and set its parameters to Color, Fill, R255 G255 B255 and a width and height exactly equal to the latest version, scaled or unscaled, of our background texture "BackPic." Save this IFF, 24 bit-plane image as "BackDropW." Do the same procedure again, except this time change the colors to "R0 G0 B0" and save as "BackDropB." These images, when used in conjunction with the upcoming Alpha masks, will be responsible for the lightening and darkening of the background texture's highlight and shadow regions (Figure 1D).

Creating the Alpha Channels

These next steps will create the Alpha channels that function as the linear transparency keys between the background texture and the white and black backdrops just created to "lay down" the highlight and shadow regions. Remember, in ADPro's version of Alpha channeling, white or higher values are transparent while black or darker values in an 8 bit-plane image are opaque. This is the reason why we made a negative of the foreground image, to allow the original black design elements to be composited onto the background texture with variable transparency through the Alpha mask. So while we still have "BackDropB" loaded in ADPro's buffer, turn on Composite and switch the Load option back to IFF. Load in "BlurPic" and when the Composite Control requester appears, leave all at their default values except the offset values Off X and Off Y. Choose a value that will be representative of how much emboss effect you desire. Take notice. A positive value will create the Shadow Alpha channel and negative values will create the Highlight Alpha channel by offsetting the transparency keys in opposite directions. So to compose the Shadow Alpha mask, enter (+4) in both gadgets and accept the requester. In ADPro, two conditions must be met for an Alpha channel to work properly. First, an Alpha channel must be the same size as the image being loaded, this is the reason why we've composited the "BlurPic" onto the "BackDropB" because this new Alpha mask will be used between the background texture and the shadow plane "BackDropB." Second, the Alpha channel must be a gray scale IFF; therefore, since we just composited a gray scale IFF onto a full-color image, we must use the operator Color_To_Gray to convert this new image back to gray scale. Now save this IFF, 8 bit-plane image as "AlphaS" (Figure 1D).

We'll now need to create the highlight Alpha mask so turn off Composite and reload "BackDropB." Switch Composite back on and reload "BlurPic." This time in the Composite Control

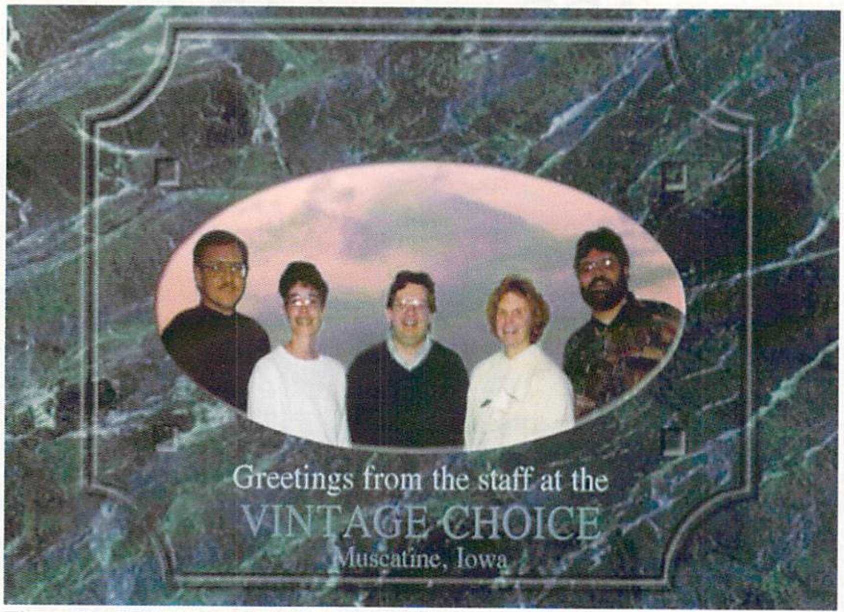


Figure 2

requester, change the Off X and Off Y values to (-4) and accept. Again, convert to gray with the operator Color_To_Gray and save this IFF, 8 bit-plane image as "AlphaH" (Figure1D). We now have our Highlight and Shadow Alpha channels.

The last temporary file we need to create before the finale is a textured foreground mask, used in the final composite to cover all the highlight and shadow artifacts that shouldn't be seen. For this, make sure Composite is off and load in the background texture "BackPic." Turn on Composite, load in "NegForePic," and in the Composite Control requester, make white (R255,G255,B255) the transparent color, click Center and accept the requester. This fills in the white regions of "NegForePic" with the background texture, leaving the rest of the image solid black. Save this IFF, 24 bit-plane image as "TexturePic" (Figure 1F). Now for the final mix.

Turn off Composite and load in the background texture. Now turn on Composite and choose the Load option "Alpha." Load in "BackDropH" and when the Composite Control requester appears, make sure all parameters are at their defaults, no offsets and no transparency color, and accept.

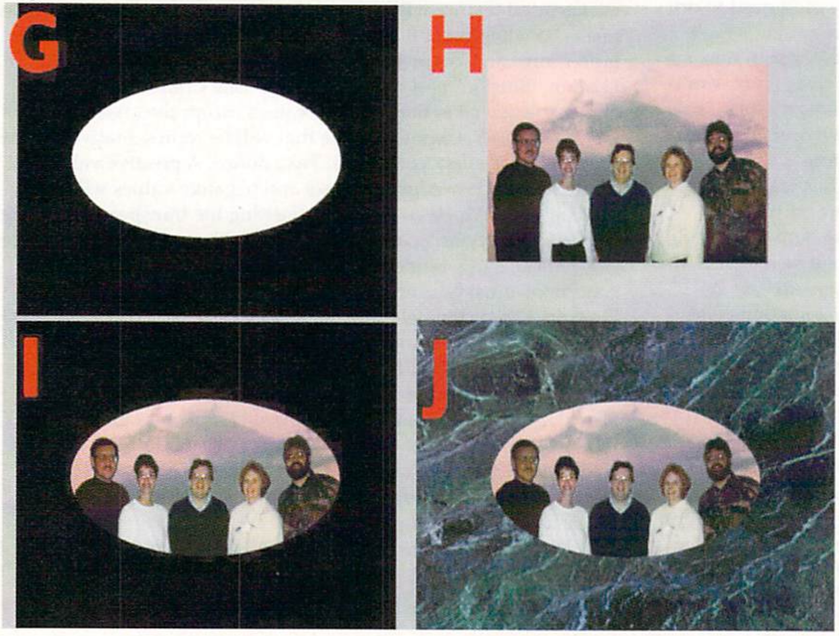
Unfortunately, because of another quirk in ADPro, the Mix parameter has no effect when used with the Alpha loader option; therefore, we'll take care of this problem shortly. Now when the file requester appears asking for an Alpha channel to load, select "AlphaH." You've now just added the highlight region to the background, but because the transparency Mix failed to function, we have a rather washed-out highlight. Correct for this by changing the Load format to IFF, leave Composite on and now load in the original background texture. In the Composite Control requester, again leave everything at default, except this time enter 65 for a Mix value to reduce the highlight effect. Next, change the Load format back to Alpha and repeat the procedure as before using "BackDropB" for the image and "AlphaS" for the Alpha channel. Again, reduce the shadow effect, but not as much, by compositing the background texture back onto this group with a Mix value of about 20. Finally, composite the "TexturePic" onto this bunch using Center, a transparency color of black(R0,G0,B0), and a full Mix value of 100. If all went well, you should now have a nicely embossed border design on a background texture (Figure 2).

For a final touch, consider blurring this image once to smooth out the rough edges or jaggies that were inherent in the foreground image. Otherwise, you're done.

Vignette Sandwich

As you can see from Figure 2, I went through several extra steps in the embossing process to add another image between the background and the foreground border design. While I won't detail those steps for you here textually, I think you should be able to understand how this was done by visually examining the component images in Figure 3. However, I must point out that had I merely composited the vignetted photo onto the final embossed image instead of first compositing it onto the background texture, the sense of depth created by the fine highlight and shadow details in the interior of the oval would have been destroyed. It is this attention to the small details that add to the realism of the embossed effect.

Figure 3

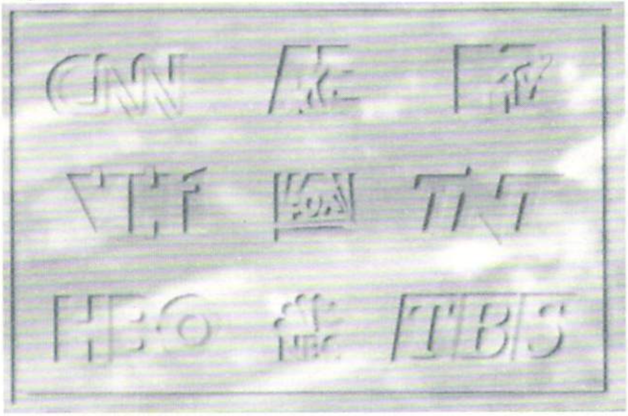


Inward Embossing

With a few minor exceptions, the principle for achieving an inward-pressed look is much the same as that for outward embossing. The major differences lie in the creation of the highlight and shadow Alpha channels. Instead of surrounding the elements of the foreground image as before, the shadows and highlights must lie inside the elements themselves, as if the edges of the background are casting shadows into the foreground elements' depression. Therefore, when creating the Alpha transparency keys, you must use the foreground image and a negative of itself composited together at a slight offset to mask out all regions but the highlight and shadow strips. This process is very similar to that operation in DeluxePaint when stamping down a two-color brush onto itself when using the right mouse button to reverse the colors being applied. Furthermore, once these pre-Alpha masks are created and blurred, the "NegForePic" is composited on each to mask out the blurry white portions that leaked outside the foreground elements because of the blur process.

Lastly, in the final compositing frenzy, the effects of the highlight and shadows can be reduced more quickly by mixing in the "TexturePic" with black transparent instead of using the whole background texture. The image created here utilized a public domain Postscript font called CableDingbats and the background was one from the ProTextures collection labelled Gold.TXT (Figure 4). If you have any questions about inward embossing that I may not have covered here, feel free to consult the ARexx script which details some extra minor points.

Figure 4



The Scripts

As usual, the code is heavily commented for yours and my benefit. The script entitled "Emboss.adrx." can be called from within ADPro itself by assigning it to one of the function keys, or by using the header script "Emboss.Hdr.rexx" from a shell or assigning it to a Directory Opus button. This script basically starts ADPro if it isn't running already and switches control to "Emboss.adrx" once ADPro is found.

One minor point that I didn't cover in the main tutorial but that is taken care of in the code is the fact that when the foreground image is blurred for later use as Alpha channels, the direction of the blurring is unfortunately not proportional in both directions due to the nature of the convolution. Consequently, I have corrected this by adjusting the offsets in the Composite parameters. If you've been following along with the tutorial, you might notice this effect in your final embossed image as thinner highlight lines in the horizontal direction, and thinner shadow lines in the vertical directions.

If you'd prefer, you can obviously save time when entering this code by omitting the comments. By my calculations, using the ARexx script instead of manually embossing should save you approximately 30 minutes.

Conclusion

As you may have noticed, I chose not to include any ARexx script for *OpalPaint*, only because it was determined that using ADPro is much faster due to the flexibility and efficiency of the more important functions, namely Blurring and Scaling. Besides, as of version 2.1 of OpalPaint, there are no ARexx commands listed for controlling the Alpha options of the Alpha mode, not to mention a bug, rendering Zap inoperable when using an Alpha channel during a Rub-Through operation. These were crucial to the success of the automatic ARexx emboss operation. However, you might try this related exercise anyway in OpalPaint if you have it.

Load in a favorite texture and make a duplicate of it in a spare page. Return to the original page and Zap the whole image using the built-in "Emboss" mode. Now using a transparency of 50%, perform a Textured Rub-Through of the spare page image onto the current page. Simple and mildly interesting.

$129.00 BIGFOOT Power Supply
200 Watt Fan Cooled A-500/600/1200 Power Supply. Will Handle Virtually Any Add-on Device Imaginable! Power Accessories Externally And Save Wear And Tear On The Motherboard.

Attention!
We Have 200/250/300 Watt 2000/3000/4000 Power Supply Solutions Great For Toasters!

Pyramid Hand Scanner
400 D.P.I. 16/32 Level Grey-scale Scanner. Text/Halftone & Grey-Scale Modes. Great For DTP And Drawing/Paint Programs. Saves 16/32 Level Grey IFF
$229.95
Pyramid Hand Scanner Is The Only Amiga Scanner To Come With A Parallel Pass Through Interface!

$39.95 Swifty Mouse
True Three Button, High Resolution Micro Switch Mouse. Great With Brilliance, Directory Opus & Others.

Handy Mouse $34.95
Two Button Micro Switch Based Amiga Replacement Mouse.

Pyramid Mouse Master
Automatic Switch For The Amiga Mouse/joystick Ports. Select Between Mouse Or Joystick Simply By Pressing The Fire Button On Whichever Device You Need.
$49.95

Slingshot
A-2000 Slot For A-500 Use A-2000 Cards On Your A-500! $39.95

$59.95 Pyramid Midi Interface
Great Amiga MIDI, Includes Serial Pass Through Port and Multiple MIDI Connections, 1 In, 2 Out & 2 Thru!

Pyramid RAM
A-501 Clone W/Clock Etc. $49.95
A-601 1MB W/Clock Etc. $99.95
Coming Soon A-1200 RAM Expansion

$55.95 Pyramid Sound Enhancer
Improve The High End Sound Output Out of Your Amiga. A Must If You Record Sound To Video Tape etc.!

New Multi-Face Card A-2000/3000/4000 High Speed Dual Serial & Dual Parallel Port Board $299.00

Pyramid Stereo Sampler
High Speed Stereo Sound Sampler W/Input Level Controls & Microphone Input Jack. $69.95

Amiga IDE Cables
$14.95

Flicker Blaster!
Flicker Remover & Audio Amp.
$249.00

Loup City, Nebraska 68853
Micro R. & D.
TOLL FREE 1-800-527-8797

Pyramid ROM Switch Only
$39.95
Keyboard/Mouse Controlled

Contact Your Dealer or Micro R.&D.
Visa/MC/COD
(308) 745-1243 Voice
(308) 745-1246FAX

Circle 118 on Reader Service card.

Emboss.adrx

```
/*********************************************************/
/*                                                       */
/*      Emboss.adrx  v1.0    by William Frawley          */
/*                                                       */
/*               November 29, 1993                       */
/*                                                       */
/*  Embosses a 2-color image or logo onto a full-color   */
/*  texture or background using ADPro.                   */
/*                                                       */
/*                                                       */
/*  Usage: Call from a function key in ADPro by renaming */
/*         this program in one of ADPro's hotkey naming  */
/*         conventions (xFy.adpro) where x=QualifyerKey  */
/*         and y=1-0, or use the ARexx macro script      */
/*         F0.adpro included with ADPro which allows the */
/*         user to select any ARexx script via a handy   */
/*         file requester. Simply select "Emboss.adrx".  */
/*         This program can also be called from within   */
/*         the included ARexx header script which will   */
/*         allow you to start this script from a CONsole */
/*          or Directory Opus.                           */
/*                                                       */
/*  NOTE:  Several temporary files are created in the    */
/*         process, therefore a HardDrive or plenty of   */
/*          RAM is highly recommended.                   */
/*                                                       */
/*********************************************************/


OPTIONS RESULTS


ADDRESS "ADPro"

ADPRO_TO_FRONT
```

➤

```
/**------------------------------**/
/**  Ask user for B&W Foreground image and full-color    **/
/**  Background image. Use ADPro’s ARexx GetFile feature **/
/**  to assign logical filenames to the external files   **/
/**  to be used as the Background Texture and Logo later **/
/**------------------------------**/

GetFile ‘“Choose 2-Color Foreground Image...”’
IF RC=10 THEN CALL Fail(“Selection Failed!”)
ForePic=ADPRO_RESULT

GetFile ‘“Choose Background Texture...”’
IF RC=10 THEN CALL Fail(“Selection Failed!”)
BackPic=ADPRO_RESULT


/**------------------------------**/
/**  Ask user for Highlight/Shadow Offset. Default for   **/
/**  ScreenSize images is 4.                             **/
/**------------------------------**/

Offset=4                                /* Default Offset. */

GetNumber ‘“Enter Shadow Offset:”’ 4 1 10
IF RC~=0 THEN CALL Fail(“Wrong Parameter!”)
Offset=ADPRO_RESULT
OffsetX=Offset
OffsetY=Offset


/**------------------------------**/
/**  Ask user for Highlight and Shadow strength.         **/
/**------------------------------**/

GetNumber ‘“Enter Highlight Strength (%):”’ 35 1 100
IF RC~=0 THEN CALL Fail(“Wrong Parameter!”)
HighMix=100-ADPRO_RESULT  /* Invert for Texture Strength */

GetNumber ‘“Enter Shadow Strength (%):”’ 80 1 100
IF RC~=0 THEN CALL Fail(“Wrong Parameter!”)
ShadMix=100-ADPRO_RESULT  /* Invert for Texture Strength */


/**------------------------------**/
/**  Ask user whether to emboss logo OUTWARD or INWARD?  **/
/**------------------------------**/

Okay2 ‘“Emboss Direction: OK=Out CANCEL=In?”’

IF RC=0 THEN Direction=”IN”
ELSE Direction=”OUT”


/**------------------------------**/
/**  Ask user where to store temporary files that are    **/
/**  created. If user selected hard drive, parse off     **/
/**  Directory where ForePic is stored to use as loca-   **/
/**  tion for temporary file storage. Otherwise, if RAM  **/
/**  is abundant, change the Directory to “RAM:”         **/
/**------------------------------**/

Okay2 ‘“Temp Dir: OK=RAM: CANCEL=HardDrive”’

IF RC=0 THEN Directory=GetDir(ForePic)
ELSE Directory=”RAM:”


/**------------------------------**/
/**  LOAD Foreground & Background pics to determine      **/
/**  each image’s dimensions.                            **/
/**------------------------------**/

LFormat “UNIVERSAL”

Load BackPic
IF RC~=0 THEN CALL Fail(“Load Failed!”)
BackWidth=GetWidth()
BackHeight=GetHeight()

Load ForePic
IF RC~=0 THEN CALL Fail(“Load Failed!”)
Image_Type
Type=ADPRO_RESULT
IF Type~=”GRAY BITPLANE” THEN CALL Fail(“Must be B&W!”)
ForeWidth=GetWidth()
ForeHeight=GetHeight()


/**------------------------------**/
/**  Ask user which image to SCALE, if needed. For best  **/
/**  results, ForePic should be smaller than BackPic in  **/
/**  both dimensions. So, either reduce the size of      **/
/**  ForePic, or scale the Background Texture larger,    **/
/**  which, depending on its nature and if it’s a 24-bit **/
/**  image, won’t suffer too much from the jaggies.      **/
/**------------------------------**/
```

```
IF ForeWidth>BackWidth | ForeHeight>BackWidth THEN DO

  Okay2 ‘“OK=Scale ForePic  CANCEL=Scale BackPic”’
  IF RC=0 THEN WhichOne=”Back”
  ELSE WhichOne=”Fore”
  END

ELSE WhichOne=0                        /* No Scaling flag. */


/**------------------------------**/
/**  Create NEGATIVE of ForePic to be used later. SAVE   **/
/**  as NegForePic. NOTE: As of ADPro V2.1.3 there is    **/
/**  a bug when Scaling a 2-color image and then using   **/
/**  the Operator NEGATIVE, so here we take the Negative **/
/**  first, Save as NegForePic, then later Scale both    **/
/**  ForePic and NegForePic if necessary, and finally    **/
/**  resave both as NewForePic and NegForePic, respect-  **/
/**  ively.                                              **/
/**------------------------------**/

Operator “NEGATIVE”   /* Inverse Forepic for use as Alpha */
                     /* mask where white is transparent. */
CALL Render

NegForePic=Directory||”NegForePic.ilbm”
Save NegForePic “IMAGE”


/**------------------------------**/
/**  SCALE?                                              **/
/**------------------------------**/

IF WhichOne=”Fore” THEN DO                /* SCALE FOREPIC */

  CALL Scale                 /* SCALE NegForePic, used for */
                             /* both IN and OUT Embossing. */
  ForeWidth=GetWidth()             /* Get new dimensions. */
 ForeHeight=GetHeight()
  CALL Render
  Save NegForePic “IMAGE”

  IF Direction=”IN” THEN DO
    Load ForePic
    CALL Scal  e
    CALL Render
   ForePic=Directory||”NewForePic.ilbm”  /* Leave user’s */
    Save ForePic “IMAGE”       /* original image intact. */
    END
  ELSE NOP

  END

IF WhichOne=”Back” THEN DO                /* SCALE BACKPIC */

  Load BackPic
  CALL Scale
 BackWidth=GetWidth()
 BackHeight=GetHeight()
  SFormat “IFF”
  IF RC~=0 THEN CALL Fail(ADPRO_RESULT)
 BackPic=Directory||”NewBackPic.iff24"
  Save BackPic “RAW”
  END

ELSE NOP                           /* NO SCALE NECESSARY */


/**------------------------------**/
/**  Determine Center Offsets for ForePic relative to    **/
/**  BackPic.                                            **/
/**------------------------------**/

CenterX=(BackWidth-ForeWidth)%2     /* Integer division. */
CenterY=(BackHeight-ForeHeight)%2


/**------------------------------**/
/**  Create the White Highlight layer                    **/
/**------------------------------**/

LFormat “BACKDROP”
Load “ANY” BackWidth BackHeight “COLOR” 255 255 255
Highlight=Directory||”BackDropW.iff24"
Save Highlight “RAW”


/**------------------------------**/
/**  Create the Black Shadow layer                       **/
/**------------------------------**/

LFormat “BACKDROP”
Load “ANY” BackWidth BackHeight “COLOR” 0 0 0
Shadow=Directory||”BackDropB.iff24"
Save Shadow “RAW”
```

```
/**_______________________________**/
/**  Create Blurred Negative Alpha Channels for soft     **/
/**  Highlight and Shadow edges.                          **/
/**_______________________________**/

BlurAmt=Offset*2  /* BlurAmt proportional to Offset value */
                  /* because larger elements need fuzzier */
                /* edges as well as larger offset values. */
LFormat "IFF"
Load NegForePic



IF Direction="OUT" THEN DO           /* OUTWARD Embossing */

  /* Create Blurred NegForePic */

  CALL Blur(BlurAmt)
 BlurPic=Directory||"BlurPic.iff8"
  SFormat "IFF"
  Save BlurPic "RAW"

  /* Create Highlight Alpha Channel */

  Load Shadow           /* Used for opacity in Alpha mask */
 Load BlurPic CenterX-OffsetX CenterY-(OffsetY%.6) 100
  Operator "COLOR_TO_GRAY"          /* The factor .6 is    */
  AlphaH=Directory||"AlphaH.iff8"  /* used to adjust the  */
  Save AlphaH "RAW"                /* offsets because of  */
                             /* the way BLURing operates. */
  /* Create Shadow Alpha Channel */

  Load Shadow
 Load BlurPic CenterX+(OffsetX%.6) CenterY+OffsetY 100
 Operator "COLOR_TO_GRAY"
 AlphaS=Directory||"AlphaS.iff8"
  Save AlphaS "RAW"

  END

ELSE DO                               /* INWARD Embossing */

  /* Create Shadow Alpha Channel */

  Load ForePic OffsetX%.6 OffsetY 100 255 255 255
  CALL Blur(BlurAmt)
  Load NegForePic 0 0 100 255 255 255     /* ForePic Mask */
  SFormat "IFF"
 BlurPic=Directory||"BlurPic.iff8"
  Save BlurPic "RAW"
  Load Shadow                             /* Opacity Mask */
  Load BlurPic CenterX CenterY 100
 Operator "COLOR_TO_GRAY"
 AlphaS=Directory||"AlphaS.iff8"
  Save AlphaS "RAW"

  /* Create Highlight Alpha Channel */

  Load NegForePic
  OffsetX=-OffsetX      /* Reverse Offsets for Highlight */
 OffsetY=-OffsetY
  Load ForePic OffsetX OffsetY%.6 100 255 255 255
  CALL Blur(BlurAmt)
  Load NegForePic 0 0 100 255 255 255     /* ForePic Mask */
  Save BlurPic "RAW"
  Load Shadow
  Load BlurPic CenterX CenterY 100
 Operator "COLOR_TO_GRAY"
 AlphaH=Directory||"AlphaH.iff8"
  Save AlphaH "RAW"

  END


/**_______________________________**/
/**  Create a "Textured Logo" by compositing ForePic on  **/
/**  to BackPic while masking out the Black portions in  **/
/**  ForePic to allow the Background Texture of BackPic  **/
/**  to show through.                                     **/
/**_______________________________**/

Load BackPic
Load NegForePic CenterX CenterY 100 255 255 255
                       /* White parts ^   ^   ^ Transparent*/

IF RC~=0 THEN CALL Fail("Composite Failed!")

Operator "CROP_IMAGE" ForeWidth ForeHeight CenterX CenterY

IF Direction="IN" THEN DO
  Brightness "-5"           /* Reduce apparent brightness */
  Operator "APPLY_MAP"       /* of INset logo.             */

  /* Reload ForePic with White area transparent to re-     */
  /* install pure Black(0,0,0) parts leaving the darkened */
  /* textured logo intact.                                 */

  Load NegForePic 0 0 100 255 255 255
  END

ELSE NOP

TexturePic=Directory||"TxtPic.iff24"
Save TexturePic "RAW"


/**_______________________________**/
/**  Create Final Embossed Image!                         **/
/**_______________________________**/

IF Direction="OUT" THEN DO           /* OUTWARD Embossing */

  Load BackPic
  LFormat "ALPHA"
  IF RC~=0 THEN CALL Fail(ADPRO_RESULT)
  Load Highlight AlphaH 0 0 100
  LFormat "IFF"
  Load BackPic 0 0 HighMix  /* Since MIX doesn't work     */
                           /* using ALPHA loader, reduce */
                           /* effect of Highlight by re- */
                           /* compositing BackPic at MIX */
                           /* of "HighMix".              */
  LFormat "ALPHA"
  Load Shadow AlphaS 0 0 100
  LFormat "IFF"
  Load BackPic 0 0 ShadMix    /* Reduce Shadow intensity. */
  Load TexturePic CenterX CenterY 100 0 0 0

  END

ELSE DO                               /* INWARD Embossing */

  Load BackPic
  LFormat "ALPHA"
  IF RC~=0 THEN CALL Fail(ADPRO_RESULT)
  Load Highlight AlphaH 0 0 100
  LFormat "IFF"
  Load TexturePic CenterX CenterY HighMix 0 0 0
  LFormat "ALPHA"
```

GRAPHICALLY ORGANIZED

SBASE™

Data isn't just text and numbers anymore.

The Amiga computer opened up the world of graphics and sound. SBase (formerly known as Superbase) helps you keep track of your pictures, sound files and anims so you can readily retrieve them or harness them for creative applications.

With use of graphic files - you can create a database of inventory not just by part number but by a graphic image as well.

Sound samples can be added to impart special directions or simply to help you tie in pictures and sounds used on a project.

SBase's full relational capabilities and intuitive interface makes it one of the most powerful database's on any platform. Capacities of database files and indexes are limited only by disk storage and your creativity.

Version 1.3 of SBase adds compatibility with AmigaDOS 3.0 and the new AGA chip set, use of Anim files, EPS clip art and compugraphic re-scalable fonts. The new Re-index feature gets you out of jams fast.

Superbase is a trademark of Software Publishing Corp.
SBase is a trademark of Oxxi Inc.
AmigaDOS is a trademark of Commodore-Amiga.

SBase Personal 4 includes a built-in text editor, mail merge, label printing, and form designer.

SBase Professional 4 includes all of the features of the Personal version plus adds support for ARexx and the Database Management Language (DML) for creation of custom applications.

SBase 4 developer's extension is a one time license that provides the ability for applications developed with DML to run by themselves without requiring the user to use the full blown SBase Professional 4.

SBase Personal 4 - List $149.95
SBase Professional 4 - List $299.95
SBase 4 Developers Extension $399.95

Upgrades and Updates from earlier versions of Superbase Personal and Professional are available from Oxxi - call or FAX for information.

Oxxi inc.

PO Box 90309
Long Beach
CA 90809
(310) 427-1227
FAX (310) 427-0971

Circle 159 on Reader Service card.

```
   Load Shadow AlphaS 0 0 100
   LFormat "IFF"
   Load TexturePic CenterX CenterY ShadMix 0 0 0

   END

Operator "BLUR" 0 0     /* Optional, but reduces jaggies */


/**───────────────────────────**/
/**  CLEANUP                                          **/
/**───────────────────────────**/

ADDRESS COMMAND 'C:Delete' NegForePic
ADDRESS COMMAND 'C:Delete' BlurPic
ADDRESS COMMAND 'C:Delete' TexturePic
ADDRESS COMMAND 'C:Delete' Highlight
ADDRESS COMMAND 'C:Delete' Shadow
ADDRESS COMMAND 'C:Delete' AlphaH
ADDRESS COMMAND 'C:Delete' AlphaS

IF WhichOne THEN ADDRESS COMMAND 'C:Delete' ForePic


/**───────────────────────────**/
/**  EXIT                                             **/
/**───────────────────────────**/

Okay2 '"Finished! Save?"'                  /* Used to stop   */
                                           /* auto close of  */
IF RC~=0 THEN DO                           /* ADPro if began */
  EmbossPic=Directory||"EmbossPic.24"      /* from Shell or  */
  SFormat "IFF"                            /* DOpus header   */
  Save EmbossPic "RAW"                     /* script named   */
  END                                      /* Emboss.Hdr.rexx*/

EXIT 0


/*********************************************************/
/****************** INTERNAL FUNCTIONS *****************/
/*********************************************************/


Fail:

  PARSE ARG Text
  Okay1 Text
  EXIT 20

 RETURN



GetDir:

  PARSE ARG FileName
 SlashPos=LASTPOS("/",FileName)+1
  PARSE VAR FileName 1 Dir =SlashPos

 RETURN Dir



Scale:

 IF ForeWidth>BackWidth & ForeHeight>BackHeight THEN DO

   IF WhichOne="Fore" THEN DO

    NewHeight=BackWidth*(ForeHeight/ForeWidth)
    NewWidth=BackHeight*(ForeWidth/ForeHeight)

     IF NewHeight>BackHeight THEN,
      Percent=TRUNC((BackHeight/ForeHeight)*100)
    ELSE Percent=TRUNC((BackWidth/ForeWidth)*100)
     END

   ELSE DO                       /* If WhichOne="BACK" */

    NewHeight=ForeWidth*(BackHeight/BackWidth)
    NewWidth=ForeHeight*(BackWidth/BackHeight)

     IF NewHeight>BackHeight THEN,
      Percent=TRUNC((ForeHeight/BackHeight)*100)+3
    ELSE Percent=TRUNC((ForeWidth/BackWidth)*100)+3
     END

   END

 IF ForeWidth>BackWidth & ForeHeight<=BackHeight THEN DO
   IF WhichOne="Fore" THEN,
    Percent=TRUNC((BackWidth/ForeWidth)*100)
  ELSE Percent=TRUNC((ForeWidth/BackWidth)*100)+3
    END

  IF ForeWidth<=BackWidth & ForeHeight>BackHeight THEN DO
    IF WhichOne="Fore" THEN,
     Percent=TRUNC((BackHeight/ForeHeight)*100)
   ELSE Percent=TRUNC((ForeHeight/BackHeight)*100)+3
    END

  ELSE NOP

  PCT_SCALE Percent Percent
  IF RC~=0 THEN CALL Fail("Scaling Failed!")

 RETURN



Render:

  /* These steps are to insure that Color Registers 0 & 1   */
  /* are again pure B&W because if scaled, colors will be-  */
  /* come altered.                                          */

  Dither 0                                  /* NO dithering */
  Render_Type 2                             /* 2-Color ILBM */
  PPoke 0 0 0 0        /* Make sure Color0 is Black(0,0,0) */
  PPoke 1 255 255 255     /* Color1 is White(255,255,255) */
  PStatus LOCKED                     /* Now Lock the Palette */
  Execute                                         /* Render */
  IF RC~=0 THEN CALL Fail("Render Failed!")
  SFormat "IFF"
  IF RC~=0 THEN CALL Fail(ADPRO_RESULT)

 RETURN



GetWidth:

  XSize
 Width=ADPRO_RESULT

 RETURN Width



GetHeight:

  YSize
 Height=ADPRO_RESULT

 RETURN Height



Blur:

  PARSE ARG Loops

  DO i=1 TO Loops
  Operator "BLUR" 0 0
  END

 RETURN
```

Emboss.Hdr.rexx

```
/*********************************************************/
/*                                                       */
/*     Emboss.Hdr.rexx  v1.0     by William Frawley      */
/*                                                       */
/*   A header script to launch the ADPro ARexx script    */
/*   "Emboss.adrx" from a shell or Directory Opus.       */
/*                                                       */
/*                                                       */
/*                                                       */
/* From Console: rx REXX:Emboss.Hdr.rexx                 */
/*                                                       */
/* From DOpus: Click DOpus gadget that is configured to  */
/*             run this ARexx script using {F} as exec-  */
/*             utable string parameter to send files as  */
/*              an argument string.                      */
/*                                                        */
/*                                                        */
/* NOTE (with DOpus):                                     */
/*                                                        */
/* "No Filename Quote" flag in DOpus gadget MUST be set!  */
/*                                                        */
/* Gadget's command string set as AmigaDOS should look    */
/* like this:                                             */
/*             Run rx REXX:Emboss.Hdr.rexx                */
/*                                                        */
/* "Run" precludes the overhead of an extra shell process */
/* similiar to using the rexx server's additional host    */
/* port 'AREXX' which supports asynchronous commands.     */
/*                                                        */
/**********************************************************/


OPTIONS RESULTS
trace results

/*——————————————————————————*/
/*  Is user running DOpus? If so, use that for interface. */
/*——————————————————————————*/

DOpus_Flag=0            /* Initialize DOpus Flag to zero */

IF SHOW('P','DOPUS.1') THEN DOpus_Flag=1

ELSE NOP            /* NOP is "No Operation" instruction */



/*——————————————————————————*/
/*  Show title and continue?                              */
/*——————————————————————————*/

CALL Verify


/*——————————————————————————*/
/*  ADPro Running?                                        */
/*——————————————————————————*/

IF ~ADPro_Locate() THEN CALL No_ADPro

ELSE DO

  IF DOpus_Flag=1 THEN TopText "** ADPro Running **"

  ELSE SAY '** ADPro Running **'

  END


/*——————————————————————————*/
/*  Start Embossing                                       */
/*——————————————————————————*/

CALL "REXX:Emboss.adrx"


/*——————————————————————————*/
/*  Close ADPro                                           */
/*——————————————————————————*/

CALL Close_ADPro


EXIT


/**********************************************************/
/****************** INTERNAL FUNCTIONS ********************/
/**********************************************************/


Verify:

  Title='Emboss v1.0,  by William Frawley'

  IF DOpus_Flag=1 THEN DO

    ADDRESS 'DOPUS.1'

    /* Initialize DOpus requester button text */
    Status 26 Set 'Okay'
    Status 27 Set 'Cancel'

    Verify Title
    IF RESULT=0 THEN EXIT

    END

  ELSE DO

    SAY
    SAY '     **** Emboss v1.0,  by William Frawley ****'
    SAY
    SAY
    SAY 'Press [RTN] to Continue, ANY KEY to Abort'

    PARSE PULL ok
    IF ok ~= '' THEN EXIT 20
    END

 RETURN


ADPro_Locate:

/* Insert proper path to ADPro if not assigned as ADPro:  */
/* Open ADPro behind other screens.                       */

  IF ~SHOW('P','ADPro') THEN DO
    ADDRESS COMMAND 'Run ADPro:ADPro BEHIND'
    ADDRESS COMMAND 'SYS:Rexxc/WaitForPort' 'ADPro'

     IF RC=0 THEN RETURN 1
     ELSE RETURN 0

     END

  ELSE RETURN 1



No_ADPro:

  Err_Mess='** Error Opening ADPro **'

  IF DOpus_Flag=1 THEN DO
    ADDRESS 'DOPUS.1'
    TopText Err_Mess
    EXIT 20
    END

  ELSE DO
    SAY
    SAY Err_Mess
    SAY
    EXIT 20
    END

 RETURN



Close_ADPro:

  ADDRESS 'ADPro'
  ADPRO_EXIT
  EXIT 20

 RETURN
```

•AC•

Please Write to:
William Frawley
c/o Amazing Computing
P.O. Box 2140
Fall River, MA 02722-2140

Amazing Computing
& AC's TECH
SUPER
SPRING
SPECIALS!

While supplies last!

Order complete volumes of
Amazing Computing and *AC's TECH*
Back Issues at these incredible prices!

Just Look:

ANY 12 BACK ISSUES
Amazing Computing:
~~$29.95~~
$20!
($25 Foreign)
(Includes shipping & handling)

ANY 4 BACK ISSUES
AC's TECH:
~~$45.00~~
$40!
(Includes shipping & handling)

Don't miss out on this great offer!

Call today and complete your collection of
the World's Most Informative
Amiga Magazine!

Call
1-800-345-3360

List of Advertisers

Please use a **FREE** *AC* Reader Service card to contact **ALL** advertisers who have sparked your interest. Amiga product developers want to hear from you! This is the best way they have of determining the Amiga community's interests and needs. Take a moment now to contact those companies featuring products you want to learn more about. And, if you decide to contact an advertiser directly, please tell them you saw their advertisement in *Amazing Computing*!

Advertiser	Page	Reader Service Number
AMOS	71	134
Armadillo Computing	70	*
Artscope Industries	70	117
ASDG, Inc.	5	102
Computer Basics	48	101
Computer Basics	49	101
Delphi Noetic Systems, Inc.	37	*
Devine Computers	43	110
Digital Creations	CIII	109
Digital Creations	CIV	108
Digital Imagery	4	125
D.K.B.	26	194
Dreamworks	70	151
Expert Services	7	116
Great Valley Products	1	105
Horizon West Productions	68	123
INOVAtronics	9	114
InSpiral Technologies	68	166
J&C Computer Services	68	165
Memory Management	69	103
Micro R&D	75	118
Migraph, Inc.	89	130
Computer Answers	19	120
Oxxi, Inc.	77	159
Proton Palace Professional	69	115
Scientific Amigan	69	112
Spectronics International, USA	42	126
Whitestone	62	148
Warm & Fuzzy Logic	CII	104

* This company wishes to be contacted directly.

Winter '94 Consumer Electronics Show

The Winter Consumer Electronics Show, January 6-10 in Las Vegas, continued its tradition of excess. There were more exhibitors (1,725+), more exhibition area (1.01 million square feet), more than 3,200 journalists, and over 79,000 attendees.

All of this excitement and hype is presented only a few days after the holidays to start retailers and distributors thinking about next season's sales. Exhibitors and attendees from around the world come to CES to see the latest technology and to decide which products they need to add to their stores' shelves over the next three quarters. As expected, the competition is high. Vendors display products ranging from auto alarms to video tapes. Walking through the convention floor, attendees see the latest stereo or television marvel as well as the furniture to house it.

This year, the traditional auto audio systems and personal video products seemed to dim against the larger fight developing in multimedia. Corporate developers of platforms such as 3D0, Atari Jaguar, CD-i, Sega, Nintendo, and CD^{32} each created unique ways to press the importance of their products.

Commodore—Low Key and Effective

Commodore's booth was a large meeting room off the main convention floor. Commodore's intention, as explained by a CBM executive, was to use their time and resources to discuss the potential of CD^{32} sales with the people who could best distribute it. By reducing the foot traffic through the display area, Commodore executives were able to concentrate on the key people they needed to convince in order to make CD^{32} a success.

To accomplish this goal, Commodore utilized their main executive staff. When attendees entered the Commodore area and asked a question about developing for the Amiga or CD^{32}, chances were they would have been sent directly to John Cambell, Director of CBM's CATS program. A question concerning Commodore's growth or engineering direction, would have been directed to none other than Lew Eggebrecht, CBM's Vice President of Engineering. Executives from Commodore UK, Commodore Germany, Commodore Canada, as well as representatives from Australia were also available to speak with retailers and distributors from their countries.

This low key approach was effective, according to several CBM executives. While we are not permitted to name some of the companies represented, almost every major retailer and chain spent time with CD^{32}. CBM representatives were very pleased with the results.

On Friday, January 7, Commodore held a press conference with a standing room only audience. Ron Peterson, Vice President of Anthony M. Franco Inc.—the public relation firm CBM hired to promote CD^{32}, began the meeting. Mr. Peterson was followed by Lew Eggebrecht who discussed the design specifications of CD^{32} and some of its properties. Mr. Eggebrecht stated that there were currently eighty titles for CD^{32} with forty-two of those titles available in NTSC format.

Jeff Porter, Director of Product Development for Commodore International, gave a quick presentation of some of the new

Above : CD^{32} MPEG kits were on display. Right: Commodore speakers (left to right) Ron Peterson, Jeff Porter, Lew Eggebrecht, and Geoff Stilley introduced the CD^{32} technology and marketing plan to a standing room only audience (Below).

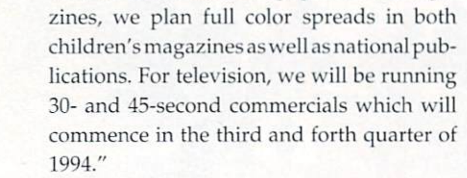
games available for CD^{32}. At the beginning of his talk, the slides malfunctioned and Jeff was able to demonstrate the flexibility of the Amiga 1200 by resetting the software in less than 30 seconds. He also gave a very fast explanation of MPEG and CD^{32}'s versatility.

Geoff Stilley, President and General Manager of Commodore U.S., stated that the target market for the CD^{32} will be, "...electronic game players with cartridge based machines, families with children ages 4 and up, single adults and married adults without children, and also households with an income of $35,000 plus."

Concerning the distribution of the CD^{32}, Mr. Stilley stated, "First we will look for software outlets usually located in shopping malls. Our second attack will be television home shopping channels, select electronic retailers, video rental stores, music stores, and, by the mid part of the year, mass merchants and toy stores."

"Our proposed marketing strategy will be to introduce the CD^{32} to the target audience I just discussed. We will generate retail traffic with a combination of advertising, public relations, direct mail, and special events. We will also combine this with extraordinary point of sale materials for all of our resellers. We are also going to attack the newspapers with ads in local newspapers as well as select national papers. For magazines, we plan full color spreads in both children's magazines as well as national publications. For television, we will be running 30- and 45-second commercials which will commence in the third and forth quarter of 1994."

Mr. Stilley went on to promise better press relations with CD^{32} units available for evaluation, appearances and product reviews on various morning talk shows and news programs, and to continue the video satellite links they did earlier. For public appearances, CBM will promote the CD^{32} at sporting events and in movie theaters and they are going to set up game challenges across the United States in high traffic malls. He also suggested a special mailer to the U. S. Amiga user groups.



3D0 exhibited in Panasonic's booth (below) as well as their own and announced new platforms from ATT and Sanyo (inserts).

"LightWave is the best 3-D interface I have ever seen." Harvester, a new game in development by Merit Software, will first be released for PC platforms. However, all of its amazing graphics were created on the Amiga with LightWave 3D.

Competition

The Atari Jaguar and CD-i booths were near one another in a temporary pavilion created for the show. The building was one of the four units across the street from the main conference center. Unfortunately for both companies, their areas were a long walk from the main event and only the strongly interested or determined attendee made the trip.

The Atari Jaguar ($249.95) has been successful in creating interest in its 64-bit internal architecture. While initial sales have been good, some rumors claim that Atari has received returns on the early units. With the Jaguar's CD-peripheral ($200) not available until the second half of 1994, Atari could have trouble maintaining the interest in their product against 3D0, CD-i, CD^{32}, or even SEGA's to-be-released CD-system, Saturn.

3D0 had a 5000 square foot booth in the multimedia section as well as exhibition space in Panasonic's area. 3D0's intent seem to be to show as many software titles as possible. Their main booth sported countless vendors demonstrating products either in production or to be released.

3D0 also demonstrated their video capabilities. One display promised realtime MPEG compression. Live video in one monitor was re-displayed by MPEG compression in a second monitor a minute later.

Nintendo and SEGA split the largest of the four buildings. Each had a variety of new games and controllers. Most industry observers suggest Sega's portion of the trade show floor is growing in proportion to their new domination of the market.

An interesting SEGA display came from HeartBeat™. HeartBeat has created Personal Trainer software and sensors for your exercising equipment. Instead of just going through a boring session with a stair climber or a stationary bike, you can attach a SEGA and the HeartBeat sensors and play one of three HeartBeat games. The faster you go, the harder your character plays. When you use the pulse rate monitor, the character will only perform his best when you are at your appropriate pulse count.

Electro Brain Corporation entertained fight fans Saturday with Sugar Ray Leonard and Marvelous Marvin Hagler as they sparred with *Boxing Legends of the Ring*, Electro Brain's new championship boxing program for the Nintendo and SEGA. Later, the two champs signed autographs for fans in Electro Brain's booth for over two hours.

Amiga Power

One of the most bizarre stories from CES comes from Merit Software. They are in the process of creating a fascinating CD based game for the IBM called Harvester. However, every screen and graphic is being created by three talented Amiga artists using LightWave 3D by NewTek.

"LightWave is the best 3-D interface I have ever seen." stated Chad Woyewodzic, Lead 3-D modeler for the project. He is joined in his work by Mike Napodano, organic artist, and Kevin Obregon, art director. They have created a world of disquieting images to tell the story. When asked if the game would also be available on the Amiga, they stated that all they would need is an Amiga programmer to program the game since all of the art is available.

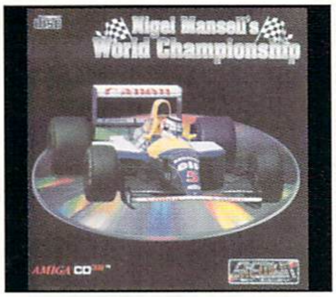
Non-Computer Extras

Aside from celebrities, new games, and the hundreds of things for the computer buff, CES also offers a variety of interesting new tools. Seiko's Home Contractor Series is a must see. They have developed a line of precision electronic measurement tools. The ProMeasure+ (originally called the Home Contractor) uses ultrasonics to measure the distance between two walls from 2 to 33 feet. The user can then measure the other room dimension to compute area or volume for paint, carpet, wallpaper, etc.

Seiko also introduced the ProMeasure (without computing ability), the ProLevel, as well as the ProTape16'. The ProLevel allows users to level any item by sight or by sound—such as placing the level on the top of a table and then adjusting the table height from below. The ProTape16' is a 16 foot tape measure fitted with a large digital display.

•AC•

CD^{32} Review



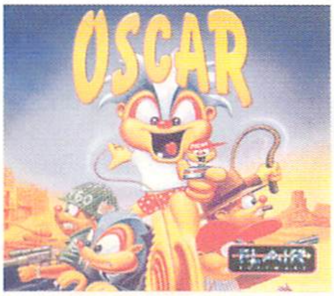
Nigel Mansell's World Championship

Gremlin Graphics Software Limited

The most exciting racing driver in the world has teamed up with Gremlin Graphics Software to bring you the definitive Grand Prix experience. In World Championship you take part in the full Grand Pix season. Each country is represented and all 16 Grand Prix tracks are waiting for you to race. Your aim is to emulate the success of Nigel Mansell, to win the World Championship and prove yourself the best Formula 1 driver.

World Championship allows you to attend driving school, race a single circuit or jump right into a full race season. While you must race in the Canon Williams Renault F1 car, you are allowed to configure your vehicle to suit a particular race by changing parameters for transmission type, gear ratio, tires, and airfoils. Experimentation with the various options produced some interesting handling characteristics and often lead to more time off the track than on! More often than not, the settings were left in the default mode which provided acceptable results. Controlling the car is fairly easy in relation to other games of this type, although anticipation of turns is mandatory.

The graphics are outstanding, and Gremlin has provided welcome details such as realistic pit crews, rear view mirrors, and changing weather conditions and backgrounds suited to each race circuit. While the sound effects were realistic, thankfully there was an option to turn off the background music, which was a distraction at best. Overall this is a very playable racing simulation and will keep many a would-be racer happy for hours. Inquiry #249



Oscar

FLAIR Software

Oscar is a Mario-style platform game that appears to utilize the graphics capabilities of the CD^{32} unit to their fullest. As with most platform games, Oscar combines arcade action with exploration and puzzle-solving. As the title suggests, you take on the role of Oscar as he changes disguises to become the latest hero of the Silver Screen. The object isto stay alive long enough to collect enough "oscars"—as in the award statue—allowing exit to the next level. Each level is based on a different class of movies, such as horror, war, western, comedy, cartoon, etc. and may be entered in any order.

As Oscar enters each level, he disguises himself to fit into the scene. While Oscar may look like a G.I., cowboy, vampire, etc., his basic abilities remain the same. In order to gain additional lives and powers, Oscar must search out floating film canisters scattered throughout the level. Each canister contains a needed power, lives, or points. Some levels require finding certain powers in order to progress beyond a certain point. On the way to the exit, there are many secrets to uncover and suprises to stumble upon. The underwater scenes are very well done. You are aware that there is water, but are not allowed to see what is below the surface unless you actually submerge.

The thumbpad allows for easy control of Oscar and jumping is accomplished by the usual press of a button. A limited number of saves are allowed on each level. Instructions are included on the disk and are fairly comprehensive. While they are a bit short on the story line, they do provide more than enough information to master the game. Overall, this game is very well done. Pay special attention to the background graphics; the detail of the scenery often caused poor Oscar to fall off a cliff due to lack of attention. Inquiry #250

Trolls

FLAIR Software

Trolls is essentially the same game as Oscar, which is also by FLAIR Software, the major difference being a change in general theme. The character being controlled is a cute little, long-haired troll rather than a nondecript "Oscar." The graphics, supporting characters, and goals have been changed to reflect the different theme. As in Oscar, the object is to collect items, in this case small trolls, while exploring a "Mario"-style platform world. The graphics are exceptional, as is to be expected given FLAIRs other efforts. Control and playability are on par with Oscar; with the overall game being very enjoyable.

Some may question the publishing of two titles that are so similar, but I actually agree with the practice. From a marketing standpoint, FLAIR appears to be trying to appeal to as many different tastes as possible. Trolls may seem to be more appealing to some, while "Oscars" appeal to others. With the two games, being as similar as they are, it all comes down to the tastes of the gamer. The only concern would involve the unfortunate person who buys both titles, only to realize that they have essentially the same game with cosmetic changes. While this may be fine for the avid platform-game lover, it could prove frustrating for those people seeking a diversified game library. Inquiry #251

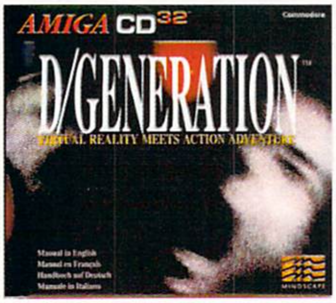
Mean Arenas

International Computer Entertainment

What do you get if you combine PacMan™ and the movie *Running Man*™? Well, in this case you get Mean Arenas, a futuristic game show where contestants must collect coins in a maze, otherwise called arenas, without being touched by the Guardians or other various hazards. You join hosts Bob Belinski and Buzz McCloud as they introduce the contestants and provide commentary throughout the contest. The comments from these two are a cross between a comedy routine and football play-by-play.

Overall control and play of this game is very much like the old PacMan game, but with many modern improvements. Besides collecting coins, the player also can collect gold for points, weapons to destroy Guardians, keys to unlock doors, first aid to restore energy, and so on. Each level has a different assortment of items to collect, and use so there is a puzzle solving element to this game. For instance, you may need a reach a special weapon locked behind a door, but in order to unlock the door you first need to find the correct key located in the arena. This is not as easy as it sounds as there is often more than one key per arena. Other features of interest include Teleporters, which transport you instantly to another location in the arena (great for quick get-aways), stairs for moving between floors of an arena, pressure pads that reveal hidden areas of the arena, etc. There are even hidden rooms which can be found by shooting at special wall blocks.

At first this game seemed old, sort of a '90's version of PacMan. But the more it was played, the more interesting it became. Game play is smooth and fast. The thumbpad controller is well-suited to this type of application. This rapidly turned into a have-to-see-the-next-level-type of game, although reaching the next level often took many attempts using different strategies. The one disappointment was that it appeared that we received a PAL version of the game that caused some status information to be cut off at the bottom of the screen. A more serious problem was the password screen was also cut off. This made it impossible to enter passwords needed in order to skip completed levels. We hope an NTSC version is not too far behind. Even with this minor problem Mean Arenas is a top notch game. The combination of outstanding game play and graphics, solid soundtrack and hilarious comments from Bob and Buzz, made this a thoroughly addicting game. Inquiry # 252



D/GENERATION

Mindscape

Recon satellites have spotted an explosion near the top of the Singapore lab building. This is where Derrida, our head scientist, is creating the next Neogen prototype, the D/Generation. The D/Generation represents an extremely advanced stage of artificial evolution. Equipped with sophisticated neuro-holographic camouflaging and a super-hardened dermal layer, it is virtually indestructible. We are now forced to accept the unthinkable, that the D/Generation is loose in the building. Alone with your jetpack, you have flown from Finland to deliver a package to Genoq Biolabs in Singapore. Your objective is to deliver the desperately needed package to Genoq's head scientist Derrida. You enter on the 80th floor and work your way to Derrida's lab on the 90th floor.

Sounds fairly simple, right? Well, think again! This game requires great aim, fast reflexes, and puzzle-solving abilities. You must navigate through over 120 rooms rendered in a unique full-room cutaway perspective while battling (or avoiding) bizarre organisms. Each room has locked doors, hidden objects, and various barriers designed to test your mettle. Pushing a switch may open one door while closing another, forcing you to experiment with other switch combinations. These puzzles get progressively difficult as you move from floor to floor. A key feature is the ability to rescue trapped survivors from various rooms throughout the building. Once you have encountered a survivor, he may be able to provide you with information that will help you find out who Derrida is and where you might find him. Besides information, each rescued survivor also provides you with an extra life.

This game has more than its share of suprises. The humorous animations of your characters demise are sure to cause a chuckle. The puzzle-solving element is combined nicely with shootem'-up action. The graphics and sound effects are well done and control via the thumbpad is easily mastered. D/Generation has numerous save and restart options, which makes progression through the game much easier. Overall, Mindscape has created a challenging game with a style all its own. If you are looking for a game with plenty of suprises, give D/Generation a try. Inquiry #253

Deep Core

International Computer Entertainment

An unidentified spacecraft has been located in orbit by weather satellite 185. An object has separated from the mother ship and has landed in the Indian Ocean; sub and sonar search reveals that the object has docked with a nuclear research facility located on the ocean floor. Your mission is to search the research station and destroy any intruders. To accomplish this task, you must navigate through partially submerged passageways and rooms, while avoiding the station security devices. Keys are necessary to open locked doors, and are located at various locations throughout the station.

Using your laser gun, you blast your way from room to room, jumping and ducking in order to avoid fire from sentry droids. Pay special attention to your oxygen and energy indicators, as a limited supply is available for both. Luckily, energy and oxygen icons often appear when an enemy is destroyed. Collection of these icons is essential for survival. Additional firepower can be obtained by collecting any of six different weapon systems, each with different advantages and disadvantages. Each of these systems can be expanded or switched by collecting weapon icons found throughout the station.

This is a classic parallel scrolling shoot-em-up. Nine huge levels make for a game that will take the average gamer hours to complete. Various sub-levels and surprises will keep the player coming back for more. As expected, the graphics and sound are excellent, and game play is easily controlled via the thumbpad and fire buttons. While this game may be wanting in the story line area, it more than makes up for it in the action department. And don't forget the keys; locked doors and hidden keys add a welcome strategy element to this game, making it all that more enjoyable. If you like to explore while you shoot, and don't mind a puzzle or two thrown in for good measure, give Deep Core a try. Inquiry #254

Castles II: Siege and Conquest

Interplay Productions

This game is intended to test your skills as an administrator, a military leader, and a politician. The Lords of the territories battle each other in an attempt to expand their realms. When a Lord conquered new lands, he would build castles there to substantiate his power over the newly acquired territory. Your mission is to unite the territories of the mythical land of Bertange in the midst of this bloody turmoil and eventually become King. This is accomplished by petitioning the Pope to back your claim to the throne once you have expanded your empire to a point of considerable wealth and power.

There are three main areas to control in Castles II: Stock, Army, and Relations. The Stock area revolves around gathering the four needed materials for expansion: food, timber, iron, and gold. Each territory has one of the four as its primary resource. Control of a territory containing each of the four materials is essential for expansion of your domain. The other attribute of this area is the ability to build castles on your land. This helps to solidify your control of the people and increases resource production. The Army area deals with recruiting soldiers, policing the realm, and creating special weapons. A strong Army is needed for defense and for attacking neighboring territories. As the name implies, Relations involves relations with the other lords in the land of Bertange. The ability to scout neighboring territories, haggle for resources, and spying are all possible.

The game is played from a strategic map displaying a top-down view of all the territories of Bertange. Status bars for Stock, Army, and Relations are arranged at the top of the screen, with action and message indicators located on the left-hand side of the map. Control is achieved by using the thumbpad to move a cursor to the desired area and pressing the red button for activation. While control is straightforward, on-screen movement of the cursor is a bit slow. This small complaint aside, Castles II is a very detailed and involved strategy game that will test your gaming abilities. The game is so involved, that this review only scratched the surface of the overall options and strategies available to the player. However, be prepared to spend a fair amount of time playing Castles as it does take a fair amount of time to accomplish the task of becoming King. Inquiry #255

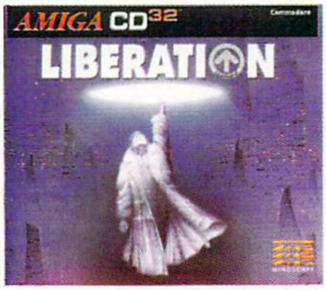
James Pond 2 - Robocod

Millennium Interactive

Dr. Maybe is back! We have learned from Washington and the Kremlin that he has taken over the central toy factory on the North Pole and sabotaged an unknown number of toys disguised as penguins with tiny but lethal explosive charges. If they are not diffused within 48 hours, they will be distributed throughout the globe and wreak havoc throughout Christmas. Your mission is tough but straightforward: Infiltrate the factory and render the penguins safe.

As secret agent James Pond, you must defeat Dr. Maybe. You will need to dodge speeding bullets, hungry cars, creepy caterpillars, and huge bosses as you attempt to complete nine rescue missions. Run, jump, duck and stretch your way through each mission. Once you have diffused all the penguins on each level, you must find the flashing barber pole exit. Keep an eye out for secret rooms and bonus areas, not to mention hidden treasures such as power stars, bulletproof armor, extra lives, and wings.

As far as platform games go, this is one of the better entries. There are enough hidden items, rooms, and surprises to satisfy the most demanding gamer. The graphics are well done as are the music and sound effects. As with most CD^{32} games, control of the game is excellent due to the improved design of the controller. Even with the outstanding control, this game was far from being a cake-walk. Each level often took numerous attempts before it was successfully completed. Thankfully, there are many power-ups and extra lives located on each level, along with the ability to continue from your last location if you meet an untimely demise. And given the number of surprises that the programmers at Millennium have included, you will need all the help you can get. Inquiry #256



Captive II: Liberation

Mindscape International

Enter the 29th Century—and enter a dying world, commercially exploited by huge corrupt state corporations and ravaged by the ever-changing climate. When Bio-corp's latest law-enforcement droids malfunction and begin murdering people, a massive cover-up operation is initiated to suppress the truth. Innocent people are framed for the murders and are held captive against their will, without trial or any chance of escape. You must take control of your four droids and explore the city zones in an attempt to free the captives.

This role-playing adventure game is a continuation of the saga that began in the game "Captive." You must explore nine different city zones, with locating and freeing each captive as your ultimate aim. The game starts with an excellent animated intro that sets the stage for the story. Once the intro is complete, you are presented with an option screen that allows you to select diffecuty levels as you pick between a strategy- or action-type game. Upon making your selections, you are transported to the first level and exploration begins.

As is typical with role-playing games, the player must pick up items and converse with characters encountered along the way. The information and items collected will prove useful as the player progresses further into the game. The player moves all four droids together, although each may have different inventories of items and weapons. An option exists for splitting up the droids, although the manual recommends against doing so. The CD^{32} controller handles movement of the droids quite well, with the four colored buttons acting as fire buttons. The manual is detailed and well thought out, not to mention quite large. Such a large manual is definatly needed, as there are numerous button combinations for talking, picking up an item, using an item, etc. If your looking for a game that requires you to use your brain as well as your brawn, Captive II - Liberation fits the bill. Inquiry #257

•AC•

FLAIR Software
Meadowfield House, Ponteland,
Newcastle NE20 9SD U.K.

Gremlin Graphics Software Ltd.
Carver House, 2-4 Carver Street,
Sheffield S1 4FS U.K.
(0742)-753423

International Computer
Entertainment, Ltd.
Bridge House, Merrywalks,
Stroud, Glos GL5 1QA U.K.
(0453)-756993
(0453)-756998 Fax

Interplay Productions Ltd.
The Barn, St. Johns Yard,
Main Road, Fyfield,
Oxon OX13 5LN U.K.
(0865)-390029
(0865)-390213 Fax

Millennium Interactive Ltd.
Quern House, Mill Court,
Great Shelford,
Cambridge CB2 5LD U.K.

Mindscape International, Ltd.
Priority House, Charles Avenue,
Maltings Park, Burgess Hill,
West Sussex RH15 9PQ U.K.
(0444)-246333
(0444)-248996 Fax

CD^{32} titles courtesy of:

British Magazine Developers
Unit 14, 225 Bysham Park Drive
Woodstock, Ontario
N4T 1P1 CANADA

Amigaman/Computer Basics
1490 N. Hermitage Rd.
Hermitage, PA 16148

DIVERSIONS

Combat Air Patrol

Rob Hays

The 1991-92 war in the Gulf has been a bonanza to war game programmers and players alike. The latest to use that setting is Psygnosis, with *Combat Air Patrol*.

CAP provides the opportunity to fly either single missions, or the entire Desert Storm Campaign. Single missions range from providing air cover for the fleet, to Scud busting, to destroying supply depots and command centers. Missions begin with a briefing, including reconnaissance films, weather reports, and intelligence estimates of enemy defenses. Moving on to the hanger deck of the ship, weapons loads are selected, then it's on to the flight deck.

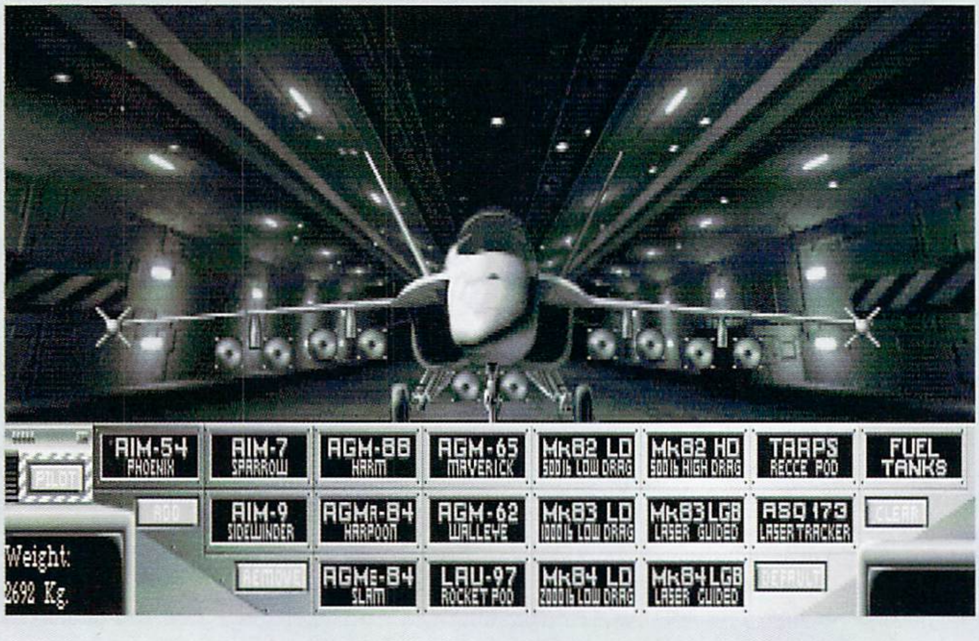
Placed in the cockpit of either an F/A-18 Hornet or F-14 Tomcat at the end of the catapult of the *USS Theodore Roosevelt* during Desert Storm, you sit with the engines at maximum afterburner waiting for launch clearance. When it comes, you are thrown off the end of the ship, heading out on another mission. Follow the directional headings displayed on your heads-up display and you will be directed to the target. After fighting your way into and out of the target area, head back to the carrier, pausing if necessary to top up the fuel from an orbiting tanker. When air traffic control gives clearance, line up with the carrier and land. After a debriefing, including new recon films and strike evaluation, it's time to move on to the next mission.

CAP includes all of the standard exterior views available via the function keys, including one that gives a fly-by view of your aircraft. You can also swivel the pilot's head to view the area around your plane from the cockpit.

The thing that really sets CAP apart from several other recent flight simulators is the campaign section. It is not enough to be the hottest fighter jock or the best ground attack mud mover, you also have to be Stormin' Norman. You are in charge of the entire Allied effort to free Kuwait.

The campaign begins with Day One of the assault, and after your first mission and debriefing, you go to the war room. Here is a map of the Iraq-Kuwait area showing positions of Allied and Enemy forces. It is your job to plan each day's actions, calling for photo reconnaissance flights, air strikes, artillery barrages, and more. When you are satisfied with your plans, click the exit icon and return to the briefing room to get your mission assignment.

Available in the campaign section is a wireframe map of the area showing the proposed route to and from the target. This map can be rotated to any position to give the best possible view of a route segment. Enemy defensive positions in the area can be added, and you can zoom in for a closer look. If you are unhappy with the assigned course, here is where you modify it.



Returning to the briefing room, you can decide to back out of this particular mission if you feel it's too dangerous. Do this by visiting the sick bay and lying to the doctor about your health. You can get away with this a few times before suspicions are aroused and you are discharged for malingering.

A lot of attention has been paid to details. As you fly missions that begin in late afternoon, the sun sinks, the sky darkens, and as night falls, your cockpit instruments disappear until you turn on their illumination. Returning to the carrier for a night landing gives some small appreciation of why naval aviators refer to this as their single most difficult task. Actually, it may be a little more difficult here than in reality because of missing landing aids. Details are apparant again in the row of landing lights that flash sequentially down the length of the flight deck as you approach.

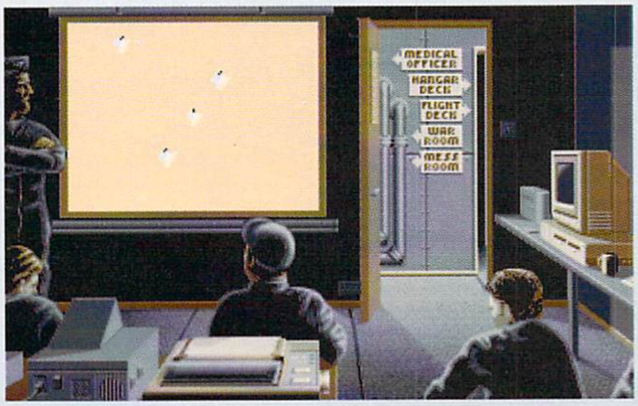
CAP is full of digitized sounds and speech: 44 samples totaling 162K. The manual contains 143 pages of history of the Gulf Conflict, and details on weapons systems and targets.

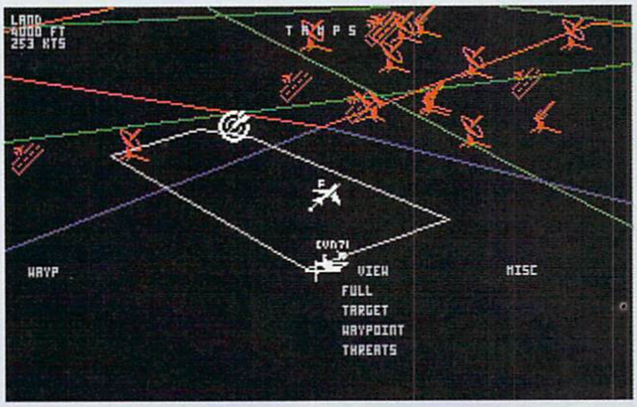
Users in Europe must finally be buying hard drives for their Amigas, because Psygnosis includes a hard disk installation routine with CAP. No mention of it is made on the box or in the manual, but it was a most welcome surprise. Unfortunately this means a manual-based copy protection scheme. When started, the program asks for information that is printed near the binding on the chapter heading pages. If you hold the book normally and flip through looking for the chapter breaks, the information is hidden until you open the book fully. Since no clue is given as to which chapter has the information you need, you are continually flipping, pausing, opening the book wider, then flipping some more. I have no quibble with copy protection itself, just this implementation. You may want to write all of the copy protection information on a separate piece of paper.

Another complaint concerns the hanger deck screen, where weapons choices are made. The program lists all weapons available for either plane as a row of icons along the bottom of the screen. A default icon will cycle through several generic weapons loads for each mission type, but it is impossible to tell for sure what some of the weapons selected are. The mouse pointer changes as you pass it over the weapons lists, so by matching the appearance of the pointer to what is on your plane, most of the weapons can be identified. Several of the weapons have identical mouse pointers, but vastly different characteristics and suitability for a specific mission task.

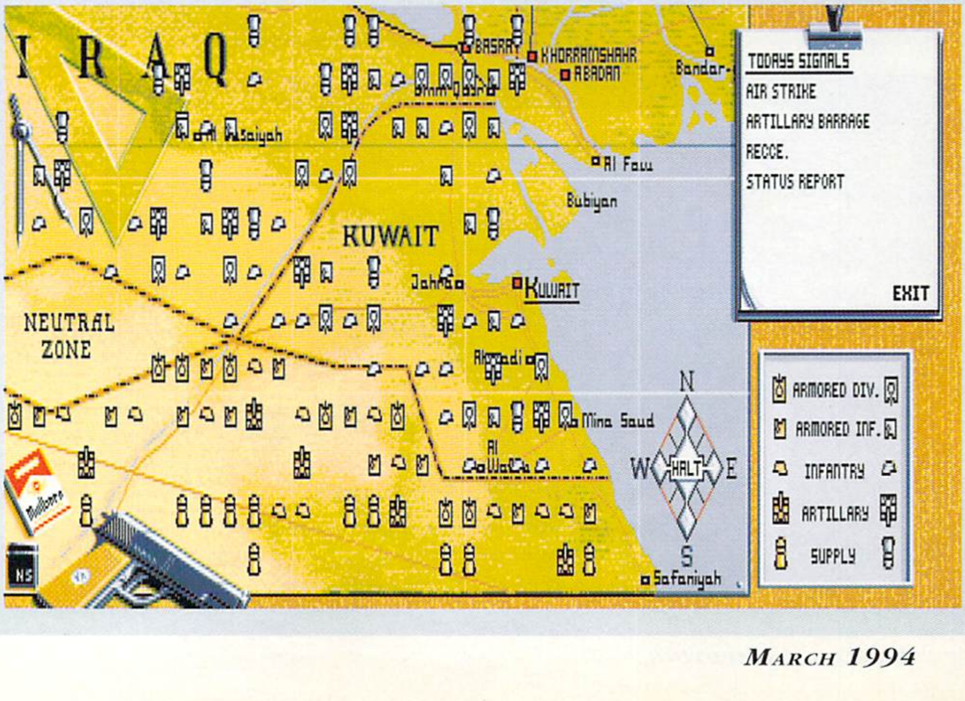
Flight control is keyboard-selectable between mouse, keyboard, or digital joystick, and can be changed at any time. Combat Air Patrol is supplied on three floppies and requires 1MB of RAM. A poster-size chart shows the control key layouts.

With only minor blemishes, Combat Air Patrol is a great jet combat flight simulator.





Combat Air Patrol
Psygnosis Limited
675 Massachusetts Ave.
Cambridge, MA 02139
(617) 497-5457
(617) 497-7794
FAX: (617) 497-6759
Inquiry #248



Prime Mover

Henning Vahlenkamp

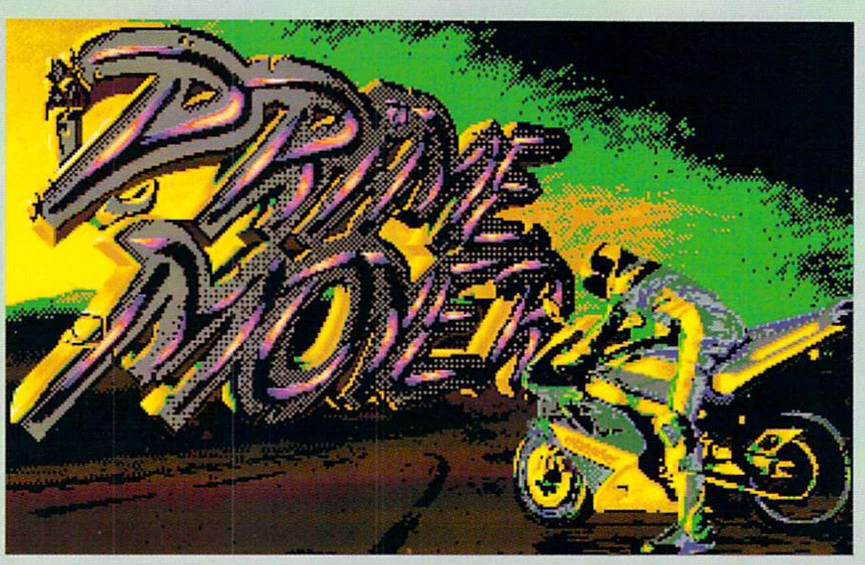
Put simply, *Prime Mover* by Psygnosis is yet another motorcycle racing game. But that's not so bad considering the scarcity of such games for the Amiga, at least in comparison to other genres. A few motorcycle racing games, namely *No Second Prize* (Thalion Simulations), *Red Zone* (Psygnosis), and *Road Rash* (Electronic Arts), have been released in the last year or two, so the question is how Prime Mover compares.

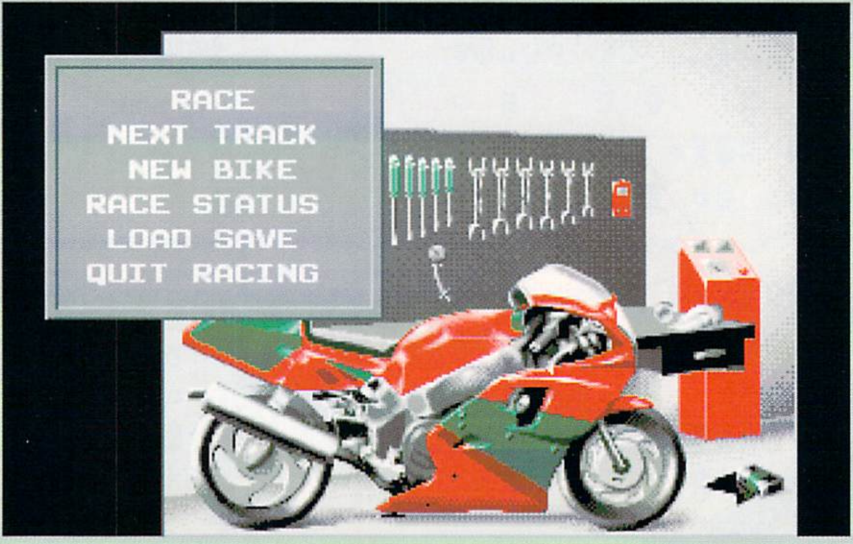
First, let's take a closer look at Prime Mover itself. The focus of this game is to compete in, if not win, a racing season. A season consists of races on 12 different tracks with varying numbers of laps, each race in a different country. These tracks are based upon real tracks; for example, Hockenhome, the game's German track, comes from the actual Hockenheim track. After finishing one track, you move to the next, always in the same order starting in the U.S.A. and finishing in Australia. Your season abruptly ends if you don't do well enough in the overall scorings, and the game neglects to mention what well enough is.

To add variety to the very linear play, Prime Mover features some game options. Upon choosing to start the game from the main menu, a grid of nine faces appears. Select one to represent your driver, and enter information including name, age, height, and weight—the last three being irrelevant. Then comes the race options menu. From here, you can begin a race, pick a motorcycle from the five available ones, view the previous race results and overall season scorings, load/ save a season, or quit racing to abandon the current season. The next track option is misleading and useless; it leads you to believe that you can go to the next race, but it really shows information about the next track while scrolling some scenery and playing the national anthem of the host country—the same as the race option—before returning you to the menu. Since the game returns to this menu after every race, you could change motorcycles repeatedly to increase the challenge, as each one sports different levels of speed and acceleration.

From the main menu, you also can choose to practice on any of the tracks using any of the motorcycles, view the high scores and game credits, or go to the options menu. The options menu allows you to change the joystick control method, listen to any of the four game soundtracks, enable/disable high-score saving or the music, or return to the main menu. I especially appreciate the control option. It features automatic or manual gear shifting, and manual shifting plus accelerating/ braking can be done in various ways through combinations of the joystick handle and/or firebutton. I found automatic shifting and joystick forward for acceleration and backward for braking to be the easiest.

After finishing with the menu screens, it's time to race. During the race, you view your bitmapped surroundings from a third-person perspective behind your onscreen motorcycle. Six computer-controlled opponents are present as well. Most of the screen shows the track and some appropriate background scenery, e.g. the Eiffel Tower in France and Mt. Fuji in Japan. The bottom of the screen is devoted to an instrument panel with such necessities as a speedometer and tachometer. It's no surprise that you must finish a race as quickly as possible while avoiding your





opponents and obstacles on the side of the road.

The technical aspects of Prime Mover meet the usual Psygnosis standards. There's even the requisite introductory animation—a driver preparing for a race. The 64-color EHB graphics are well-done, as are the high-tech, high-energy soundtracks and sound effects. Only the instrument panel, identical for every motorcycle, is a bit drab. Animation is extra smooth and fast, especially when you're blasting down a track at 180mph. Prime Mover runs on all 1MB Amigas. The instruction manual, amounting to a flowchart of the menu structure, appears on the back of a full-color 16.5" x 23.5" poster of the game box illustration.

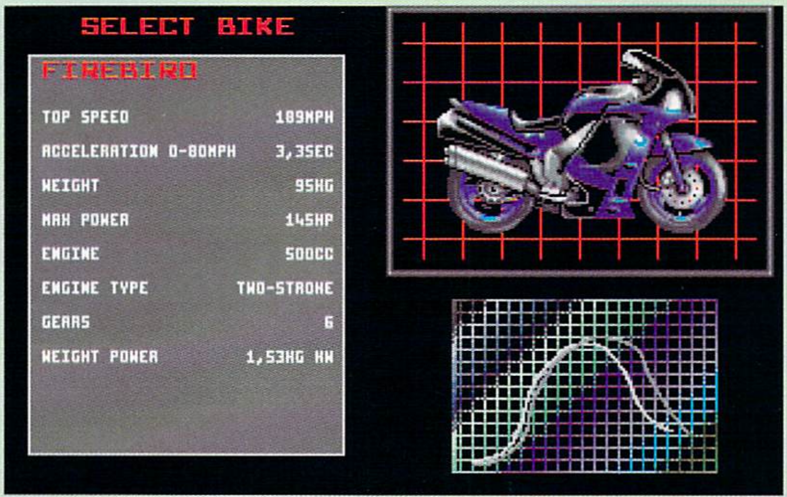
While I couldn't find any real bugs in this game, there are some irritations and omissions. The copy protection on its two disks is disappointing in light of the recent release of *Hired Guns*, Psygnosis' first system-friendly Amiga game. Furthermore, the protection occasionally thrashes DF0:'s read/write heads—a serious no-no. Saves must be done on game disk one—another serious no-no. The last irritation concerns the box's "NTSC Version" sticker. Most game screens are designed for NTSC resolution, but the instrument panel on the racing screen will be unreadable if your Amiga isn't in PAL mode. The mode switch of the AmigaDOS 2.1+ Display Options menu doesn't work for Prime Mover, so you need something such as Chris Hames' *Degrader* 1.30 to get PAL.

As for omissions, screen shots on the box show the positions of you and your opponents on a miniature track in the upper-left corner of the screen, but the game shows only your position. Consequently, it's difficult to know where your opponents are, and the finish line's location isn't shown either! I also wish the instrument panel had rear view mirrors. Moreover, whenever your motorcycle hits something, you merely slow down rather than crashing. Granted this makes the game easier, but it removes some realism too.

Although Prime Mover is good, the box's lofty claim about its being "The smoothest, most realistic arcade motorcycle game ever..." remains questionable; No Second Prize, featuring polygon graphics, is also very smooth and realistic. But Prime Mover does have better graphics than Road Rash and Red Zone, Psygnosis' earlier effort. Apparently Psygnosis learned some lessons in the meantime, since the control is much better than that of Red Zone as well. Then again, Prime Mover doesn't have Road Rash's fighting-while-driving aspect.

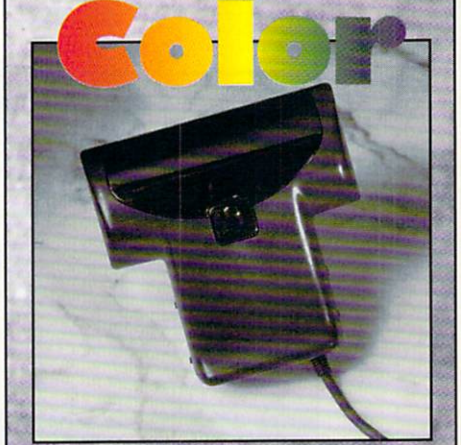
Of the four motorcycle racing games, Prime Mover scores well. Nevertheless, remedies to aforementioned problems would make the game appreciably better. In the end, it's a toss-up between Prime Mover and No Second Prize, depending upon whether you prefer bitmapped or polygon graphics.

Prime Mover
Psygnosis Limited
675 Massachusetts Ave.
Cambridge, MA 02139
(617) 497-5457
(617) 497-7794
FAX: (617) 497-6759
Inquiry #247



SELECT BIKE

FIREBIRD	
TOP SPEED	189MPH
ACCELERATION 0-80MPH	3,3SEC
WEIGHT	95KG
MAX POWER	145HP
ENGINE	500CC
ENGINE TYPE	TWO-STROKE
GEARS	6
WEIGHT POWER	1,53KG KW



Images at your fingertips!

Scan color images in a snap with the Migraph ColorBurst™ color hand scanner. This three-in-one scanner scans in 18-bit color (up to 262,144 colors), 64 true greyscales, and monochrome. So whether you need new backgrounds and textures for video/animation, greyscale images for DTP work, or want to scan text for OCR (Optical Character Recognition) processing, you can do it with the ColorBurst.

Save your images in IFF and 24-bit IFF/HAM-8 formats for exporting to the Toaster or your favourite application.

- 6 scanning resolutions: 50-400 DPI.
- 5 scanning modes: Super Color, Color, Greyscale, Color Dither Halftone and Monochrome/Line art.
- Compatible with Workbench versions 1.3, 2.x, and 3. Supports new AGA chipset.

See your local Amiga dealer or call Migraph direct to order your ColorBurst scanner today.

Call NOW!
800-223-3729

MIGRAPH INC
32700 Pacific Hwy S.#14
Federal Way, WA 98003
Tel: 206 838 4677
Fax: 206 838 4702

Works on all Amigas (except A1000) with 2MB RAM; 4MB and hard disk recommended.

Circle 130 on Reader Service card.

Feedback

Letters to the Editor

edited by Paul L. Larrivée

A reader wonders which version of WordPerfect is causing a problem; another responds to *TV GUIDE*'s major omission of CD^{32}; and a hapless user pleads for more graphic chip RAM on his A1000.

A Dual Response

I would like to address two entries in your *AC* 8.10 issue: the letter by Kevin Arvin in the "Bug Bytes" column; and the letter by Michael Duval in the "Feedback" column. I much appreciate Mr. Arvin's observations concerning the bug he found in *WordPerfect 4.1* with how the program treats the time of the day. But I have one question. Since there are two 4.1 versions for the Amiga, to which version is he referring—version 4.1.11 or 4.1.12? If he is referring to 4.1.11, then the problem may have been solved in 4.1.12. In that case, he should upgrade. If the problem is present in both versions, then, unfortunately, until WordPerfect Corporation again writes their program for the Amiga, we are stuck.

Mr. Duval's comments about wanting programs written for the MS-DOS computers or Macintosh computers to work on the Amiga are another matter. As it happens, I agree with his perfect logic about being able to use programs designed on another platform to be run on the Amiga, whether directly or by altering it to operate correctly on the Amiga. Yes, this makes logical sense to the user who has some—or even expert—understanding of computers.

Unfortunately, it is not the users who have the main control of what is done with the programs; it is the companies and programmers who make that determination. That is why I present the following ideas. I will divide his question into several parts: compatibility, capability, and, a manufacturer's willingness to produce for more than one computer system and more than one platform. "Platform" here refers mainly to the type of operating system: i.e., MS-DOS vs. AmigaDOS vs. System 7 vs. Unix vs. TOS. Platform also refers to the type of microprocessor used by the respective computers: i.e., Intel vs. Motorola. When people speak of compatibility, they talk about a program or a board on one type of computer working the same way on another: i.e. The Video Toaster, designed for the Commodore Amiga computers; Lotus 1-2-3, designed for the MS-DOS computers; PhotoShop, designed for the Apple Macintosh computers; X-Windows, designed for the Unix system computers; or a RAM expansion board made for one of the platforms to work on another.

The critical aspect is not whether a program can run on various platforms; it is whether you can use the data/information created by one program with a different program of the same type—word processing, spreadsheet, data base, etc. Sometimes, the data created and stored by one program cannot even be directly used by another similar program designed for the same computer and computer system.

Another definition of compatibility is one computer being able to run a program written for a different computer with a different operating system. This will almost never work because the authors write the programs geared to whichever platform—MS-DOS, UNIX, AmigaDOS, CP/M—they have available to them. And unless that person or company has other platforms available and has the inclination, the money, and the time, the program will not be written for a different platform.

WordPerfect Corporation and SAS Institute were two companies that had written their programs for the Amiga, from the beginning. SAS Institute still does in its "C" compiler. *SuperBase* and games are other programs which are available for the Amiga as well as other platforms. WordPerfect Corporation decided to abandon the Amiga computer, saying that the market was not good enough. As angry and upset as we may feel, we must remember it is their program and their money and they have a right to do this. I still use version 4.1.12 as my word processing program of choice because of its power. There are also the considerations of copyright. Even if a programmer could get the source code for a program written for the MS-DOS computers, he must get permission from the party holding the copyright.

And, then there is the attitude I heard expressed at the PC EXPO in New York: since Commodore does not market its machines much, and since IBM and Apple always market their machines, some software companies have no intention of writing their program(s) for the Amiga. Companies with this attitude obviously would never consider porting their program(s) to the Amiga, no matter how much we Amigans would love to use them.

Mr. Duval enters the next definition of compatibility when he speaks of having *Lotus* available for the Amiga. If he is referring to information or data created by using one type of program on one platform be used by a similar program on another platform, to that I say, yes! For example, you can pass data back and forth between Lotus and *MaxiPlan*; you can pass documents back and forth between *ProWrite* and *WordPerfect*. Therefore, it is not necessary to have a port of a program written for a platform other than the Amiga.

Mr. Duval also speaks of capabilities of the Amiga. What good is having the most versatile desktop computer available if you run into the above? All I can suggest is to use programs, written for the Amiga, which can transfer the data back and forth between platforms. Using MSH, MultiDOS, CrossDOS, and DOS-2-DOS to transfer files from an MS-DOS formatted disk to an AmigaDOS formatted disk, you have access to the data. MS-DOS computers do not have this ability. There is one caveat: Sometimes it is not possible to port a program from one platform to another, nor is it possible to use the data in the same way when transferred from one platform/ computer system to another. The Video Toaster by New Tek cannot be ported to the MS-DOS or Macintosh worlds because it uses frequencies peculiar to the Amiga. If a person must use AutoCAD, he or she must use an MS-DOS machine because it has not been successfully ported to the Amiga; and, if a person must use *PhotoShop*, he or she must use a Macintosh for the same reason.

I wholeheartedly agree with Mr. Duval's sentiments. But if he must use programs written for the MS-DOS computers, he can either install a bridge-board or use an emulation program like CrossPC or PCTask for MS-DOSprograms; or, for the Apple Macintosh computers, he can install an AMAX II+ or an Emplant Board for Macintosh programs. Since the data/information still has to be transferred, when needed, don't forget about the various transfer programs I have already mentioned. I hope this answers Mr. Duval's questions.

Julian Aronowitz
Bronx, NY 104678-2421

Thank You Thank You

Thanks for a wonderful magazine. Each month I look forward to the next issue long before it's actually due. Keith Cameron's "cli directory" column is great. I lent my brother the latest copy of *AC's GUIDE*, and it has yet to resurface from the depths of his apartment!

One small criticism of mine: I find *AC*'s layouts too busy.

Also, compliments to Don Hicks for his exposing the major "dis" by *TV GUIDE*. I'm pleased to report that I wrote in protest immediately to Author Greg Fagan, an associate editor at TV GUIDE. *[See "Editorial Content," V. 8.10, wherein the editor calls* TV GUIDE *to task for its failure to mention CD^{32} in a one-page article: "The Disc Debate: What's the Next Big Game Machine?" November 13, 1993.—PLL]* I included an article about CD32, complete with a full-color photo, and a copy of David Tiberio's list of famous Amiga uses.

I believe we, the users and fans of the Amiga, have the power to drastically influence our favorite platform's future. I'm thankful that a magazine of your caliber is in our camp!

Lois Garcia
Sacramento, CA

More Graphic Chip RAM, Please!

Everybody appears to be thrilled with the Amiga 1200 and 4000 with the AGA chipset. As a keen Amiga user since 1985 (two 2000s and a 3000), I looked forward to getting a 4000 to help making my job better. As a graphic designer and art director, I do just about everything on the Amigas.

I recently received the 4000/040 with the full complement of RAM and a 1GB hard drive. Unfortunately, it didn't take long for disappointment to set in—for the first time with a new Amiga!

Only 2MB of graphic chip RAM just isn't enough any longer. I'm constantly running out of memory, and I find processing time to be quite slow when using the full color capabilities of the new AGA chipset. Why doesn't anyone talk about that? On my 3000 I multitasked using *Pro Page, Pro Draw* and *DeluxePaint*, sometimes even a few more applications, without a problem.

Now I want to be able to do the same on the 4000 and, of course, make full use of the new AGA color modes, like HAM8 and 256 HiRes, but it's just not possible. Please, Commodore, give us another 2MB of chip RAM. This must be possible. Amigas are full multitasking machines, supposedly not forcing one to continually reload programs when one processes a job through various applications. I'd love to continue using Amigas, but Commodore is making this difficult.

We all try to be positive about Amigas in these rough times for it, but one must be realistic. Any suggestions on how I could overcome my problem? I can't be the only one who is struggling!

Ger Kalesse
Halfway House
Republic of South Africa

Please write to:

Feedback Editor
c/o Amazing Computing
P.O.Box 2140
Fall River, MA 02722-2140

Readers whose letters are published will receive five public domain disks free of charge.

AC's Back Issue Index

Amazing Computing

❦ Vol.7, No.11, November 1992
Highlights include:
"Amiga 4000," Commodore creates a bold new direction in Amiga computing with expanded graphic resolutions, modular CPU, and more.
"Progressive 040/2000," a review by Rick Mataka.
"Remap Magic," Learn why this tool is your best bet for making use of your palette.
"Beginning C," Chue Xiong covers some of the basics of the C language.

❦ Vol.7, No.12, December 1992
Highlights Include:
"Polishing Basic Programs," Marianne Gillis shares the secrets of BASIC programming experts.
"Banners," A tutorial on creating banner-length printouts, by Pat Kaszycki.
"Structured Drawing & TueBASIC," paul Castonguay shows how TrueBASIC fully supports any level of hierarchical structure.
Also, complete reviews of Voyager 1.1, PIXOUND, VistaPro 2.0, and OpalVision.

❦ Vol.8, No.1, January1993
Highlights Include:
"Creating a Storyboard in Final Copy," see how to layout your animation storyboard in Final Copy. by R Shamms Mortier.
" A Look at 24-bit Libraries," Shamms Mortier looks at 24-bit libraries.
"Using Laser Disk Players with the Amiga," Rom Battle examines the benefits of laser disks as a source of video images. He also shows an easy way to set them up.
Plus: A complete review of the new A1200 & coverage of Comdex Fall 92 & the FES-London.

❦ Vol.8, No.2, February 1993
Highlights Include:
" Extending the AMOS Sort," Dave Senger looks at the AMOS sort function.
" Business Cards," Soft-Logik's Dan Weiss gives an in-depth tutorial on how to create your own business cards.
"AD1012," a review by Rick Manasa.
AND! A special sneak preview of the One-Stop Music Shop from Blue Ribbon & complete coverage of the WOCA Toronto!

❦ Vol.8, No.3, March 1993
Highlights Include:
"Babylon 5," the Amiga changes the way TV shows are made, by les Paul Robley
"AmigaVision Projects," by William Murphy
"Art Expression," review by Merrill Callaway
PLUS: Creative business forms & CES Winter '93

❦ Vol.8, No.4, April 1993
Highlights Include:
"TriplePlay Plus & SyncPro", reviews of two great music products by Rick Manasa
"CanDo," a review of the application development system from INOVAtronics, by Rob Hayes
ALSO: Super VideoSlot for April, ARexx, cli, and great Diversions!

❦ Vol.8, No.5, May 1993
Highlights Include:
"Directory Opus", review of the latest version of Directory Opus and a start-up tutorial by Merrill Callaway
"Media Madness," explores the inside of Blue Ribbon Soundwork's new Media Madness, by Todor Fay & David Miller
"SuperJAM 1.1," a review of the latest release of SuperJAM! by Rick Manasa
"ImageFX," review by R. Shamms Mortier
ALSO: Super VideoSlot for May—The New Graphics Modes!

❦ Vol.8, No.6, June 1993
Highlights Include:
"AMOS Turns Professional",review of a major upgrade hailed as a comprehensive development system, by Jimmy Rose
"Searching Medical Literature," using the Amiga to tap the vast resources of medical on-line services, by Dr. Michael Tobin
ALSO: Newsletter Design, ARexx Programming, Hot Diversions

❦ Vol.8, No.7, July 1993
Highlights Include:
"TypeSMITH 1.0", review of Soft-Logik's new font editor, by Merrill Callaway
"OpalPaint 2.0," review of the latest version of this paint program for the OpalVision board, by R. Shamms Mortier
"Structured Drawing," basic features and advanced techniques, by Dan Weiss
"DeluxePaint IV AGA," review of the latest paint package for the AGA machines, by R. Shamms Mortier
ALSO: Super VideoSlot, ARexx, and New Products!

❦ Vol.8, No 8, August 1993
Highlights Include:
"Amiga Vision Professional", review Commodore's upgraded authoring system, by Douglas J. Nakakihara
"Art Department Profesional 2.3," review of the latest release of AdPro from ASDG, by Merrill Callaway
"Professional Page 4.0," the latest incarnation of Pro Page, by Rick Manasa
"Pseudo Radiosity Effects," why ray tracing is not an accurate model of true light behavior, by Mark Hoffman
"T-Rexx Professional", a review of the latest release of T-Rexx from ASDG, by Merrill Callaway
ALSO: AC Phone Book: A directory of Amiga Developers!

❦ Vol.8, No 9, September 1993
Highlights Include:
"Adventures with Aladdin",Part III of this tutorial series on Aladdin 4D, by R. Shamms Mortier
"CanDo,"First installment of this series for CanDo programmers, by Randy Finch
"Caligari 24," Review of version 3.0 of this 24-bit software, by R. Shamms Mortier
"Coming Attractions," A look into the future attractions in Amiga games, by Henning Vahlenkamp
ALSO: WOCA—Australia & Summer CES!

❦ Vol.8, No 10, October 1993
Highlights Include:
"Making Waves", Focus on the wave requester in Part IV of the Aladdin series, R. Shamms Mortier
"Clouds in Motion," Animated clouds in Scenery Animator, by R. Shamms Mortier
"Media Madness," Discover what it can do for Bars&Pipes, by Rick Manasa
"Bars&Pipes Professional 2.0," review by Rick Manasa
"Bernoulli MultiDisk 150", A review of this great Iomega drive.
ALSO: Commodore's new CD32!

❦ Vol.8, No 11, November 1993
Highlights Include:
"CanDo", This installment covers developing a custom object by combining several standard CanDo objects, by Randy Finch.
"Brilliance," A complete review of this hot new paint and animation program from Digital Creations, by Frank McMahon.
"Online," The introduction of this new telecommunications column for the Amiga, by Rob Hays.
"Get Graphic: Digital Image F/X," The introduction of AC's new graphics column, by William Frawley.
"Picasso II", A review of one of the best new graphics cards available, by Mark Ricken.
ALSO: WOCA Pasadena: Commodore introduces CD-32! Plus, the incredible LightRave, a Video Toaster emulator!

❦ Vol.8, No 12, December 1993
Highlights Include:
"CanDo Tutorial", Basic concepts behind animations and presentations, by Randy Finch.
"LightRave Review," A review of this uniques Toaster emulator, by Shamms Mortier.
"Online," The introduction of this new telecommunications column for the Amiga, by Rob Hays.
"Get Graphic: Digital Image F/X," The introduction of AC's new graphics column, by William Frawley.
"Video Toaster 4000 Review", A review of the latest Video Toaster by Shamms Mortier.
ALSO: 1993 Reader's Chioce Awards!

# AC's TECH

❦ AC's TECH, Vol. 2, No. 4
Highlights Include:
"In Search of the Lost Windows," by Phil Burke
"No Mousing Around," hide that annoying mouse pointer with this great program, by Jeff Dickson.
"The Joy of Sets," by Jim Olinger
"Quarterback5.0," a review by Merrill Callaway.

❦ AC's TECH, Vol. 3, No. 1
Highlights Include:
"Comeau Computing's C++," A review of this great new C compiler by Forest Arnold.
"Programming the Amiga in Assembly Language Part 5," by William Nee
"Make Your Own 3D Vegetation," Laura Morrison shows how to use iterated functions to create 3D trees and plants.
PLUS! The HotLinks Developer's Toolkit ON-DISK!

❦ AC's TECH, Vol. 3, No. 2
Highlights Include:
"Olé," An arcade game programmed in AMOS BASIC, by Thomas J. Eshelman.
"Programming the Amiga in Assembly Language Part 6," by William Nee
"Wrapped Up with True BASIC," Text and Graphics wrapping modules in True BASIC, by Dr. Roy M. Nuzzo
"ARexx Disk Cataloger," An AmigaDOS manipulator that produces a text file containing information about the floppy disks you want cataloged, by T. Darrel Westbrook
AND LOTS MORE ON DISK!

❦ AC's TECH, Vol. 3, No.3
Highlights Include:
"Rexx Rainbow Library," A review by Merrill Callaway
"Programming the Amiga in Assembly," by William Nee
"All You Ever Wanted to Know About Morphing," An in-depth look at morphing for Imagine by Bruno Costa and Lucia Darsa
"Custom 3D Graphics Package Part I," Designing a custom 3D graphics package by Laura Morisson.
"Build a Second Joystick Port," A simple hardware project for an additional joystick port by Jaques Hallee.
AND LOTS MORE ON DISK!

❦ AC's TECH, Vol. 3, No. 4
Highlights Include:
"Custom 3D Graphics Package Part II," Put the finishing touches on your own graphics package by Laura Morisson.
"TruBASIC Input Mask," An interesting TrueBASIC utility by T. Darrell Westbrook.
"Time Efficient Animations," Make up for lost time with this great animation utility by Robert Galka.
"F-BASIC 5.0," A review of this latest version of F-BASIC by Jeff Stein.
PLUS: CD32 Development Info!

1-800-345-3360

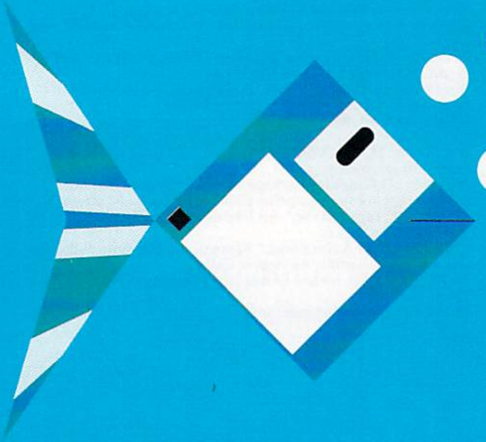
BACK ISSUE SPECIALS! SEE PAGE 80 FOR DETAILS

Complete selection of Amazing Computing and AC's TECH AVAILABLE!

WHAT HAVE YOU BEEN MISSING? Have you missed information on how to add ports to your Amiga for under $70, how to work around *DeluxePaint*'s lack of HAM support, how to deal with service bureaus, or how to put your Super 8 films on video tape, along with Amiga graphics? Do you know the differences among the big three DTP programs for the Amiga? Does the ARexx interface still puzzle you? Do you know when it's better to you use the CLI? Would you like to know how to go about publishing a newsletter? Do you take full advantage of your RAMdisk? Have you yet to install an IBM mouse to work with your bridgeboard? Do you know there's an alternative to high-cost word processors? Do you still struggle through your directories?

Or if you're a programmer or technical type, do you understand how to add 512K RAM to your 1MB A500 for a cost of only $30? Or how to program the Amiga's GUI in C? Would you like the instructions for building your own variable rapid-fire joystick or a 246-grayscale SCSI interface for your Amiga? Do you use easy routines for performing floppy access without the aid of the operating system? How much do you really understand about ray tracing?

The answers to these questions and others can be found in *AMAZING COMPUTING* and *AC's TECH.*



THE Fred Fish Collection

Below is a listing of the latest additions to the Fred Fish Collection. This expanding library of freely redistributable software is the work of Amiga pioneer and award winning software anthologist, Fred Fish. For a complete list of all AC, AMICUS, and Fred Fish Disks, cataloged and cross-referenced for your convenience, please consult the current ***AC's Guide To The Commodore Amiga*** available at your local Amazing Dealer.

Fred Fish Disk 931

Comgraph A powerful function plotter. You can administer up to ten functions at the same time, plot functions and their derivatives, zoom these and calculate symbolic derivatives, zero points, extreme points, turning points and saddle points, poles and gaps. Furthermore, you can calculate integrals (integral, area, curve length, rotation volume, rotation surface). Contains a simple scientific calculator, linear equation solver, prime factor reduction, and prime number calculator. High print quality. English and German version coexistant in one program. Binary only, shareware. Author: Andre Wiethoff

DynamiteWar A tiny game for 2-5 players who fight against each other. It is similar to the commercial Dynablaster or Bomberman, except a 1-player mode is not available. On the other hand, there are a great number of extras. To win the game, one player has to disintegrate all other players by exploding bombs. Binary only, shareware. Author: Andre Wiethoff

Modules Command extensions for the M2Amiga V4.xx Modula-II Compiler of A+L AG. In about 13 Modules are over 410 importable objects with 311 commands and functions, for programming devices, graphics and intuition. The are four Modules alone covering graphics (GraphicsSupport, Copper, Fonts, Simple3D), with a total of 140 commands. Most modules contain one or two demo programs showing sample usage. Author: Andre Wiethoff

Fred Fish Disk 932

DynamicSkies A big toolbox for astronomy that has, for an ultimate goal, to answer with speed any question that may arise on celestial objects. For example, suppose you have an urge to observe Jupiter tonight from your window; You may consult rise/set times of Jupiter, ask when it crosses south-west (supposing your window faces south-west), and with just a mouse click have a glance at the simulated sky at this time. You may even animate Jupiter's path across the sky with a time-step animation. Of course, if you're a real star gazer, don't forget your binoculars or telescope for the real thing! Version 1.0, binary only. Author: Patrick DeBaumarche

Fleuch A little game with more than five extra large stages. The object is to pickup up your cargo and climb safely to the next stage, without being shot or running into anything, (including your cargo!). Scrolling, shooting, some gravitation, similar to Thrust (C64). Version 2.0, and update to version 1.0 on disk number 760. Binary only. Author: Karsten Götze, title music by Andreas Spreen

StackMon A program to monitor the stack use of other programs or tasks. Has a convenient GadTools front end. Requires AmigaDOS 2.04 or higher. Version 1.0, includes source in E. Author: David Kinder

Fred Fish Disk 933

ConvertHAM A utility to convert HAM picture files to ordinary ILBM files, with 2 to 256 colours (2 to 32 on non-AGA machines). Version 1.2, binary only. Author: David Kinder

EditKeys A keymap editor. Supports editing of string, dead and modifiable keys, as well as control of repeatable and capsable status of each key. New test mode, plus LoadKeymap support utility. Version 1.4, an update to version 1.3 on disk 817. Binary only. Author: David Kinder

GuiArc A graphical user interface for cli-based archivers like lha, arc, ape, zoo, etc. It has the 'look & feel' of a directory tool and can perform all basic actions on archives, such as Add, Extract, List, Test, Delete, etc. You can enter archives as if they were directories. You don't have to know anything about archivers. Fully configurable. Archivers not included, requires AmigaDOS 2.0+. Version 1.22, an update to v1.10 on disk number 863. Binary only, freeware Author: Patrick van Beem.

PhxAss PhxAss is a complete macro assembler, which supports the instruction-set and addressing modes of all important Motorola processors (MC68000,68010,68020,68030,68040,6888x and 68851). It understands all common assembler-directives (Seka, Devpac, Metacomco, etc.) and can generate linkable Amiga-DOS object files or absolute code. In both cases the user has the opportunity to choose between the large and small code/datamodel. PhxAss is written entirely in assembly language and works with Kickstart 1.2/1.3, OS2.x and OS3.x. Version V3.60, an update to version V3.30 on disk number 905. Binary only, with documentation in English. Author: Frank Wille

PhxLnk Linker for Amiga-DOS object files, which also supports the small-code/data model. Version V2.03, an update to version V1.35 on disk number 853. Binary only, with documentation in English. Author: Frank Wille

ShellMenus A program to help Shell users be more prolific and save time. Shell Menus creates user definable menus that attach to the Shell window. Offers an intuition interface to edit your menus instead of a text editor and many other features not found in other programs that use menus. Requires OS2.04+, Version 2.7, binary only. Author: Mark Ritter

Fred Fish Disk 934

ABackup A very powerful backup utility. Has a full Intuition interface, a "batch" mode, can save/load file selection, handle HD floppies, use any external compression program, etc... This new version adapts itself to the default font and screen mode, and may be up to 40% faster than previous versions. Includes French, German, and English versions. Version 4.03, an update to v2.43 on disk 871. Shareware, binary only. Author: Denis Gounelle.

AZap A "new generation" binary editor, able to edit files, memory or devices like floppy or hard disks. It can open several windows at the same time, is localized, and handles all OS3.0 file systems. Includes both French and English documentation. Version 2.11, an update to version 2.04 on disk number 875. Binary only. Author: Denis Gounelle

PublicManager Public screen tool which opens public screens that are freely configurable (depth, size, font, ...) and have their own menu (palette, quit, tools,...) Requires Kickstart >2.04! Version 1.4, an update to verision 1.2 on disk 685. Binary only. Author: Michael Watzl

ToolType A program to make it easier to edit tooltypes in icons. ToolType will read the tooltypes from an icon file and let you use your favorite text editor to change or add to the tooltypes. Includes an option to sort the tooltypes alphabetically. Version 37.206, requires OS2.0+, binary only. Author: Michael J Barsoom.

Fred Fish Disk 935

AmiCDROM A CDROM disk filing system for the Amiga. It supports the ISO-9660 standard and the Rock Ridge Interchange Protocol. The CDROM drive is mounted as a DOS device (e.g. CD0:). You can access files and directories on a CDROM disk by the usual syntax, e.g. "type cd0:foo/readme.txt". Version 1.7, includes source. Author: Frank Munkert

Badger An icon management utility. When you throw files on Badger's appicon they get a new icon depending on which pattern in Badger's list they match. Version 1.1. Author: Erik Sagalara.

ClipWindow A program that makes it easy to put frequently used text on the clipboard. It opens an AppWindow on the Workbench which accepts Project icons and associated text files. The text is copied to the clipboard ready for pasting. Text may be in a separate disk file or directly entered as Tool Types in the Project icon. Also included is ConPaste, a Commodity by Carolyn Scheppner which allows pasting clipboarded text almost anywhere. AmigaDOS 2.0 or higher required. Version 1.0, includes source Author: Jim Harvey

LazyBench A little utility for lazy people with a hard disk crammed full of goodies which are too difficult to reach because they are buried away in drawers inside drawers inside drawers inside drawers... LazyBench installs itself as a commodity, adds an item under the Workbench "Tools" menu and waits in the background. Use its hot key combination to pop up its window and then select an item. Now OS 2.xx only and fully "User Interface Style Guide" compliant. Font sensitive (uses the Default Screen Font) and each gadget has a single key equivalent. Version 1.12, an update to version 1.10 on disk number 894. Binary only. Author: Werther 'Mircko' Pirani

MuchMore Another program like "more", "less", "pg", etc. This one uses its own screen to show the text using a slow scroll. Includes built-in help, commands to search for text, and commands to print the text. Supports 4 color text in bold, italic, underlined, or inverse fonts. Can load xpk-crunched files, has a display mode requester and is localized (german catalog included). Version 3.6, an update to version 3.3 on disk number 895. Includes source in Oberon-2. Author: Fridtjof Siebert, Christian Stiens

VirusChecker A virus checker that can check memory, disk bootblocks, and all disk files for signs of most known viruses. Can remember nonstandard bootblocks that you indicate are OK and not bother you about them again. Includes an ARexx port, supports SHI's Bootblock.library. By using this library and its brainfile you have the ability to add new Bootblock viruses as SHI release new brainfiles. Version 6.33, an update to version 6.30 on disk 913. Binary only. Author: John Veldthuis

Fred Fish Disk 936

BaseConvert GUI program to convert a number from one base to another. Shows conversions between Decimal/Hex/Octal/Binary all simultaneously. Requires Kickstart 2.0 or higher. Version 1.1, binary only. Author: Johan Vande Ginste.

Spooler Prints textfiles in the background. Copying a file to the SPOOL: directory is all that is required. The program shows you a list of files to be printed and gives you a report on the file currently being printed. Requires Kickstart 2.0 or higher. Version 2.3, binary only. Author: Johan Vande Ginste.

TKEd TKEd is a very comfortable Intuition-based ASCII editor with an english and german user-interface. It can read texts packed with PowerPacker, has user-definable menus, a comfortable AREXX interface with 116 commands, an interface to some errortools for programmers, macros, undo, wordwrap, supports foldings, has an online help mode, and many other features. TKEd is reentrant and can be made resident. It's Kickstart 1.3/2.04 compatible, supports the new ECS-screenmodes, an application window and checks itself for linkviruses. Version 1.17a, an update to version 1.11 on disk 781. Evaluation version, with editing limited to files 9999 lines and less. Binary only, shareware. Author: Tom Kroener

Fred Fish Disk 937

64Door A Commodore 64 Terminal emulator program which allows you to call Commodore 64 BBS systems in the C64-specific color terminal mode commonly referred to as C/G mode. Written in 100% 68000 Assembly language. Version 1.0, binary only, public domain. Author: Clay Hellman

Galactoid A one or two player shoot-em-up game that resembles the old arcade classics Galaga and Galaxian. You must avoid and destroy waves of dive-bombing enemies. Written in 100% 68000 assembly language using direct hardware access for maximum smoothness and playability. Binary only, shareware. Author: Clay Hellman

KingCON A console-handler that optionally replaces the standard 'CON:' and 'RAW:' devices. It is 100% compatible, but adds some VERY useful features, such as: Filename-completion (TAB-expansion); A review-buffer; Intuition menus; Jump-scroll. (FAAST output!) Cursor-positioning using the mouse; MC68020-optimized version; And more... Version 1.0, requires OS2.x, binary only. Author: David Larsson

Knit Converts an IFF picture (8-colors or less) into a knitting pattern. For a specified stitch size, Knit will tell you how many stitches per row are needed and how many rows are used. Knit bases all of its calculations on the size of a standard monitor screen which means that your finished knitting should be about the size of your screen. (Thus, if you have a extra large or small monitor, you may need to make adjustments.) Version 1.01, binary only. Author: Don Finlay

Megasquad A two player game with two modes of gameplay: Tag and Duel. Features many different play boards, has music, sound, and is very smooth. Written in 100% 68000 assembly language using direct hardware access. Binary only, public domain. Author: Clay Hellman

WhereK A highly configurable hard drive utility. Features an automatic disk cataloger with 3 modes, turns directories into ascii files that can be saved and searched, allows other programs to run while continuing in the background, creates lists with versions of the libraries on your hard drive and disks. All files created can be saved. Features 2 help modes, individual help for keys and a comprehensive help mode, both accessible from the program. Runs on WB2.0+ except for the Library Versions Bulk Lister which requires WB3.0 and above. Version 3.0, binary only, freeware. Author: Kenneth J. McCormick.

Fred Fish Disk 938

Angie ANother Great Intuition Enhancer commodity that offers about 100 Intuition related actions you may assign to multiple arbitrary hotkeys. Arbitrary DOS commands and input event data may be assigned to the hotkeys too. Furthermore, Angie includes automatic window hunting, auto ActiveWinTask priority increment, 'TWA' type window remembering, auto DefPubScreen definition, etc. Angie comes with a comfortable Intuition user interface. This is version 1.6, giftware, includes source in Oberon-2. Author: Franz Schwarz

ApplSizer New, localized version of the AppIcon utility that gets the size of disks, directories or files. Gives the size in bytes, blocks and the actual size occupied. Supplied with a French catalog. Includes English documentation in AmigaGuide format and French documentation. Also offers several new enhancements. Requires KickStart 37.175 or higher. Version 0.68, an update to version 0.61 on disk 853. Binary only. Author: Gérard Cornu.

DPU Disk Peek and Update, a hex disk and file editor. Functions include show device info, show bitmap, check disk, zap file, zap disk, zap filesystem and zap rigid disk blocks. Version 1.5, an update to version 1.2 on disk number 721. Binary only, freeware. Requires Release 2.04 or higher. Author: Frans Zuydwijk

Filters A GUI-based RC Filter design program. Allows you to set the desired characteristics for either a high or low pass filter, calculate the required values, and display/print the resultant phase/frequency graphs. Version 1.2, binary only, shareware. Requires OS2.0+. Author: Wim Van den Broeck

MN3A An antenna design program used to calculate currents, impedance, and fields of wire antennas. The wires may contain lumped-constant loads. Environment may be free space or various groundtypes. Version 1.0, binary only, freeware. Author: Jim Martin.

PicCon An aid for graphics programmers. PicCon will use the datatypes library to load any picture format you've got support for, and you will then be able to extract any part of the picture and save it in your desired format. Ordinary bitplanes, "blitterlines", chunky pixels and various sprite formats are supported. The raw data can be saved as binary, assembly or C source. Saving of the palette entries in a variety of formats is also supported. Requires OS3.0. Version 1.06, binary only, shareware. Author: Morten Eriksen.

TurboLeusch With the help of "Turbo-Leuschner" you are able to create your own menus for Workbench-based windows or expand already existing menus. Turbo-Leuschner supplies ALL functions of the Workbench-Menu-System. With Turbo-Leuschner, you supply the name of the window and the menu file to attach to it, thus you can attach menus to the "AmigaShell" window, your favorite GUI-based utility, or simply the WorkBench Window itself. Binary only, shareware. Author: Thomas Hölle

Fred Fish Disk 939

AddPower A utility that adds some miscellaneous useful features to the 2.0+ OS. Includes: file requesters in any program, stop drive clicking, fix menus and pen colors of pre-2.0 programs, wildcard * = #?, make screen borders black, open any window on front screen. All features are independantly configurable. Workbench and AmigaDOS interfaces with online AmigaGuide documentation. Version 37.6, binary only. Author: Ian J. Einman

AlertHelp A little tool that helps you to interpret the alertmessages. When an alert occurs, the program displays a window with a little description of the alert. This is version 0.55. Freeware, includes source. Author: Jan Hagqvist

ARexxSuper An all-purpose mouse-controlled ARexx communication program. All done via a nice GadTools interface, documentation in AmigaGuide format, useful for testing and debugging ARexx interfaces. Requires reqtools library V38+ and Kickstart 2.0+. Version 1.0, binary only, shareware. Author: Frédéric Delacroix

CloseWB This program attempts to close the WorkBench screen after "n" seconds. It is useful to put into startup-sequences that start an application and no longer need the WorkBench screen (such as Imagine). The closing of the WorkBench screen will save some chip RAM. Will work with any Amiga running KickStart 2.0 or higher. Version 1.0, binary and source included. Author: Daniel Bachmann

ExtraCmds A set of 18 AmigaDOS commands, chiefly inspired by UNIX, written to augment the collection distributed as part of the System Software Release 2.04 (V37) and will not run under older releases. This is the second public release consisting of the commands Common, Compare, Concat, Copyright, Count, DirTree, Find, Head, Lower, Prepare, SCD, Split, Splitname, Tee, Testbits, TimeCom, Unique and Usage. Includes an English User's Reference Manual in LaTeX format and source code. Author: Torsten Poulin

IanUtils A collection of some small but useful Assembly language tools. Included are: Colors, a kickstart 3.0 palette editor. Edit any screen's palette by percents, rather than fixed integers; Output, an AppIcon that will call your text/picture/sound/etc. viewer. Customizable for any IFF type; SetColor, Allows setting screen colors from the shell, useful for scripts; SetDepth, a command to change screen depth. Give your WB1.3 8 colors; EMenu, adds key equivalents to WB1.2/1.3 menus. Lays out the menus "prettier." Source included for SetColor, SetDepth and EMenu. Author: Ian J. Einman

Upcat Disk catalog program. Read file information from disks, store it in a catalog in memory, save/load catalogs to/from disk, display catalog in several ways, select files to be displayed, print (selection of) catalog, 32 user definable categories, add comment to records in catalog, ARexx interface, user definable macro menu. Version 1.2, an update to version 1.0 on disk number 854. Binary only, freeware. Requires Release 2.04 or higher. Author: Frans Zuydwijk

Fred Fish Disk 940

AltTab A small Commodity that successively displays the screens titles at the press of 'Alt-Tab' and allows you to choose which screen to bring to the front. Requires Kickstart 37.175 or higher. Version 0.2, binary only. Author: Gérard Cornu.

BootMan A boot manager program that allows you to select a startupsequence at boot time using the mouse or keyboard. Also allows password protection and a timer to load a default startup if none is selected. Includes a preference editor for easy modification and startup. Will work with any Amiga running KickStart 2.0 or higher. Version 1.1, binary only. Author: Daniel Bachmann

VideoMaxe A video database that satisfies all needs of a private video user. With full OS 2.1+ and environmental support (localization, application icon, installer, font-sensitive runtime gadget layout, layout saving, guide documentation, ...) the program handles record suggestions, spool informations, free amount of additional data per tape or title, comfortable search routines, printing, etc. Requires OS 2.1. Version 04.20, update to version 03.22 on disk number 637. Binary only, Shareware. Author: Stephan Suerken

Fred Fish Disk 941

CardZ Patience card games. Includes two version of Klondike, The Wall and Up/Down. Version 1.0, binary only, freeware. Requires Release 2.04 and needs a 640x256 PAL HighRes screen. Author: Frans Zuydwijk

FlipPrefs With this program, you can create several preferences files, (The "DEVS:system-configuration" type) of different names and switch between them on command. A sample usage would be to customize the startup script to set different preferences depending on the operating system booted into. Could also be useful in different development environments or for machines with multiple users. Version 1.0, binary only, freeware. Author: Thorsten Stocksmeier

Guide2Doc Converts AmigaGuide® file to a normal document without any "@{xxx}"s, but full ANSI-support! CLI-ONLY, optional tableof-contents-generation and page-numbering. Output goes to StandardOut, so you may redirect it, eg. ">prt:", or read the guide in CLI. V1.0, freeWare, includes C-source. Author: Bernd (Koessi) Koesling

Mine A Modula-2 implementation of an old computer game. You have an N * N square with mines hidden in some fields. Your job is to mark them with a flag as fast as possible. Version 2.0, an update to version 1.8 on disk number 835. Contains some bug fixes and improvements. Most important: now always uses the default public screen and does not open it's own multitasking and-chipmem-goodbye-screen. Requires AmigaDOS 2.0. Source in M2Amiga Modula-2 and (newest) 68020 version are available from the author. Author: Thomas Ansorge

SOUNDEffect Sound sample editing program. Special features include: temporary buffers, frequency and amplitude modulation (tremolo and vibrato), echo, special reverb effect, chorus effect, mixer, free hand editing, low and high pass filter, compresser, expander, limiter, distortion and all the usual functions (copy, paste, insert, cut, looping, zooming etc.). All effects are available in stereo. This is no update to V1.32!, the program has been completely re-written and has a new user interface. Runs with OS1.3 or above. Version 2.10, binary only, shareware. Author: Sven Bühling

YAMFG Yet Another Mine Field Game. This is a big classic. Your tank must move through the variable-width and height mine field to a target. Mainly designed to help beginners cope with assembly. Uses reqtools.library © Nico François. Version 1.0, includes heavily commented source. Author: Frédéric Delacroix

Fred Fish Disk 942

ACalc A small calculator with floating point, hexadecimal and decimal modes. Has 10 memories, saves the last result in the clipboard, may be used with the mouse or keyboard. With OS 2.x and 3.0, may be installed as a Commodity. Includes both French and English versions. Binary only. Author: Denis Gounelle

AS65 A comfortable and efficient 2 pass cross assembler for the Whole 6502 processor family. Version 2.3d, contains documentation in both english and german. Binary only. Author: Thomas Lehmann

LibraryGuide An AmigaGuide file that lists about 170 different "libraries" often found in the LIBS: directory and a simple one or two line description of their purpose along with version info and where to get them, etc. May help you determine whether or not you actually "need" some of these space-consuming things. Version 1.0. Author: Dan Elgaard

WBMenu A simple CLI-only tool that allows you to add new menu-entries to the "Tools" menu of the Workbench. Useful for scripts and batch files, simple to use. Requires OS2.04+. Version 3.4, Includes source in assembler for both English and german versions. Shareware. Author: Thorsten Stocksmeier

To Be Continued......

In Conclusion

To the best of our knowledge, the materials in this library are freely distributable. This means they were either publicly posted and placed in the public domain by their authors, or they have restrictions published in their files to which we have adhered. If you become aware of any violation of the authors' wishes, please contact us by mail.

IMPORTANT NOTICE!

This list is compiled and published as a service to the Commodore Amiga community for informational purposes only. Its use is restricted to non-commercial groups only! Any duplication for commercial purposes is strictly forbidden. As a part of Amazing Computing™, this list is inherently copyrighted. Any infringement on this proprietary copyright without expressed written permission of the publishers will incur the full force of legal actions.

Any non-commercial Amiga user group wishing to duplicate this list should contact:

PiM Publications, Inc.
P.O.Box 2140
Fall River, MA 02722

AC is extremely interested in helping any Amiga user groups in non-commercial support for the Amiga.

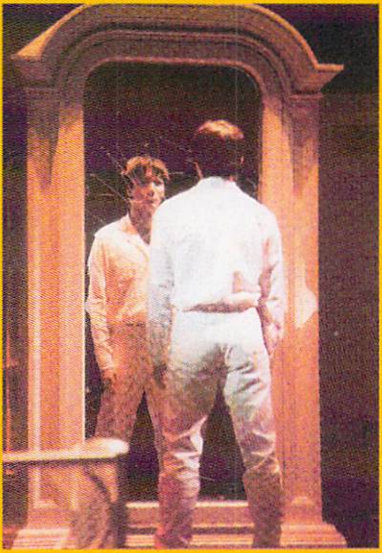
•AC•

And furthermore...

TOMMY CAN YOU HEAR ME
THE WHO'S
TOMMY
EVER SINCE I WAS A YOUNG BOY I PLAYED THE SILVER BALL
SEE ME FEEL ME TOUCH ME HEAL ME

Amiga Takes the Stage

by Jeff Gamble



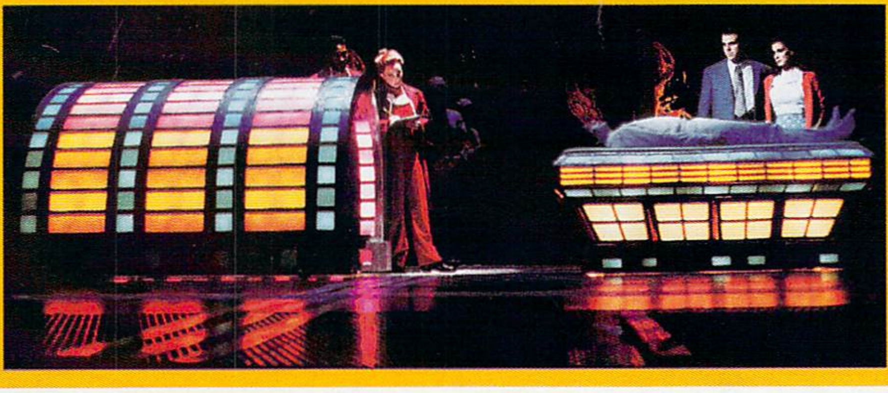
The Amiga is a pretty versatile machine. It has appeared in a variety of interesting settings, from cable stations to Hollywood movie production houses to major sporting events. Now, the Amiga is in another interesting environment: the theater.

Last year, Pete Townshend's rock opera *Tommy* opened on Broadway with great success. The show has sprouted a road company that recently spent well over a month at the Colonial Theater in Boston. It was here that the Amiga was spotted performing an interesting task. In the production, an Amiga 1200 is used as a link between an ETC Obsession Lighting Console and the Artisan Vari*Lite console. The Amiga runs a program called *Stage Manager* from Richmond Sound Design to accomplish this feat.

According to Hope Buchan, the show's Vari*Lite operator and assistant electrician, the Amiga acts as a link between the two consoles that control the action of the stage lighting. The Amiga acts as a translator between the Obsession which speaks DMX and the Artisan which speaks MIDI. The Obsession controls conventional lights and the Artisan controls the moving lights. The Obsession sends a signal to the Amiga. The Amiga then sends a signal to the Artisan, which in turn makes the lights move, keeping everything in sync. If readers have had the opportunity to see this particular show, they will know that this is an incredible feat, since the face-paced action and special effects of this production involve a countless number of intricate lighting displays. Ms. Buchan says that the system works well. It is more versatile than other set-ups. Also, the Amiga automates a step in the control process, eliminating the need for an additional person at the controls, thus reducing the human error factor and allowing for faster and unique lighting choreography.

Apparently, this arrangement is becoming more common, with other major Broadway productions involving the Amiga in some fashion. Perhaps being part of this incredible Tony Award winning team will open new doors for the machine. With its processing power, versatility, video, sound, and multimedia capabilities, it only makes sense that the Amiga should appear more frequently as part of major stage, screen, and television productions. If you happen to be in New York, or *Tommy* comes to your area, you should definitely see the show. It is an amazing production, and the Amiga plays an important role.

•AC•



YES! *The "Amazing" AC publications give me **3 GREAT** reasons to save!*

Please begin the subscription(s) indicated below immediately!

Name________________________________

Address ________________________________

City________________ State ______ ZIP________

Charge my Visa MC #________________________

Expiration Date ________ Signature ____________________

Please circle to indicate this is a **New Subscription** or a **Renewal**

Call now and use your Visa, Master Card, or Discover or fill out and send in this order form!

1 year of **AC**	**12 big issues of Amazing Computing! Save over 43% off the cover price!**	**US $27.00** ☐ **Canada/Mexico $34.00** ☐ **Foreign Surface $44.00** ☐
1-year SuperSub	**AC + AC's GUIDE—14 issues total! Save more than 45% off the cover prices!**	**US $37.00** ☐ **Canada/Mexico $54.00** ☐ **Foreign Surface $64.00** ☐
1 year of AC's TECH	**4 big issues of the FIRST Amiga technical magazine with Disk!**	**US $43.95** ☐ **Canada/Mexico $47.95** ☐ **Foreign Surface $51.95** ☐

Please call for all other Canada/Mexico/foreign surface & Air Mail rates.

Check or money order payments must be in US funds drawn on a US bank; subject to applicable sales tax.

SUBSCRIBE!

NAME________________________________

ADDRESS________________________________

CITY________________STATE______ZIP________

CHARGE MY: __VISA __M/C #________________________

EXPIRATION DATE__________ SIGNATURE____________________

Amazing Computing Back Issues: $5.00 each US, $6.00 each Canada and Mexico, $7.00 each Foreign Surface. Please list issue(s)____________________

Amazing Computing Back Issue Volumes:

Volume 1-$15.00* Volume 2, 3, 4, 5, 6, 7, or 8—$20.00* each or any 12 issues for $20.00*

* All prices now include shipping & handling. * Foreign surface: $25. Air mail rates available.

AC's TECH AMIGA **Single issues just $14.95! V1.1 (Premiere), V1.2, V1.3, V1.4, V2.1, V 2.2, V2.3, V2.4, V3.1, V3.2, V3.3, V3.4, V4.1**

Volume One, Two, or Three (complete) or any four issues— $40.00!

Freely Distributable Software – Subscriber Special (yes, even the new ones!)

1 to 9 disks	**$6.00 each**
10 to 49 disks	**$5.00 each**
50 to 99 disks	**$4.00 each**
100 or more disks	**$3.00 each**

$7.00 each for non subscribers **(three disk minimum on all foreign orders)**

Amazing on Disk:

AC#1 ...Source & Listings V3.8 & V3.9	AC#2 ...Source & Listings V4.3 & V4.4
AC#3 ...Source & Listings V4.5 & V4.6	AC#4 ...Source & Listings V4.7 & V4.8
AC#5 ...Source & Listings V4.9	AC#6 ...Source & Listings V4.10 & V4.11
AC#7 ...Source & Listings V4.12 & V5.1	AC#8 ...Source & Listings V5.2 & 5.3
AC#9 ...Source & Listings V5.4 & V5.5	AC#10 ...Source & Listings V5.6 & 5.7
AC#11 ...Source & Listings V5.8, 5.9 & 5.10	AC#12 ...Source & Listings V5.11, 5.12 & 6.1
AC#13 ...Source & Listings V6.2 & 6.3	AC#14 ...Source & Listings V6.4, & 6.5
AC#15 ...Source & Listings V6.6, 6.7, 6.8, & 6.9	

Back Issues:

$________

AC's TECH:

$________

PDS Disks:

$________

Total: $________

(subject to applicable sales tax)

Please list your Freely Redistributable Software selections below:

AC Disks ____________________

(numbers 1 through 15)

AMICUS ____________________

(numbers 1 through 26)

Fred Fish Disks ____________________

(numbers 1 through 950)

Complete Today, or telephone 1-800-345-3360 now!

You may FAX your order to 1-508-675-6002

Please allow 4 to 6 weeks for delivery of subscriptions in US.

(Domestic and Foreign air mail rates available on request)

Check or money order payments must be in US funds drawn on a US bank; subject to applicable sales tax.

ORDER!

Please return to:

Amazing COMPUTING For The Commodore AMIGA

P.O. Box 2140
Fall River, MA 02722-2140

Please place order form in an envelope with your check or money order

Please return to:

Amazing COMPUTING For The Commodore AMIGA

P.O. Box 2140
Fall River, MA 02722-2140

Please place order form in an envelope with your check or money order

Amazing Computing for the Commodore Amiga—
Your original monthly Amiga resource!

FREE INFORMATION! FREE INFORMATION!

Amazing Computing For The Commodore AMIGA FREE INFORMATION!

AC March 1994 valid until 4/30/94
see page 80 for reference numbers

Name ____________________
Street ____________________
City ____________ ST. _____ ZiP ________
Country ____________________

A. Which of the following do you now own?
(please check all that apply)
○ 1. Amiga 500 ○ 4. Amiga 1200
○ 2. Amiga 600 ○ 5. Amiga 2000
○ 3. Amiga 1000 ○ 6. Amiga 3000
○ 7. Amiga 4000

B. If none of the above, which do you plan to buy soon?
○ 7. Amiga 4000 ○ 10. Amiga 1200
○ 8. Amiga 3000 ○ 11. Amiga 600
○ 9. Amiga 2000 ○ 12. Amiga 500

C. Which Amiga hardware product do you plan to buy next?
○ 11. memory expansion ○ 15. modem
○ 12. hard drive ○ 16. music tool
○ 13. IBM emulators ○ 17. video product
○ 14. printer ○ 18. accelerator
○ 19. other (please specify): ____________

D. Which Amiga software product do you plan to buy next?
○ 20. 'C' language ○ 27. spreadsheet
○ 21. Forth language ○ 28. database
○ 22. Modula-2 language ○ 29. financial
○ 23. Assembly language ○ 30. video
○ 24. BASIC language ○ 31. graphics
○ 25. entertainment ○ 32. music
○ 26. telecommunications ○ 33. other (please specify): ____________

E. How much money are you likely to spend on all Amiga product purchases this year?
○ 34. \$0—\$250 ○ 38. \$1501—\$2000
○ 35. \$251—\$500 ○ 39. \$2001—\$4000
○ 36. \$501—\$1000 ○ 40. over \$4000
○ 37. \$1001—\$1500

F. Where do you buy Amiga products?
○ 41. local Amiga Dealer ○ 43. manufacturer
○ 42. discount department store ○ 44. mail order

G. How many times have you purchased an Amiga product after seeing it in *AC*?
○ 45. frequently ○ 47. once
○ 46. occasionally ○ 48. never

H. How did you obtain your copy of *AC*?
○ 49. subscribe (how long? ______ years)
○ 50. buy at local Amiga dealer
○ 51. buy at bookstore/newsstand/software store
○ 52. other: ____________

I. How many others *not including yourself* usually see or read your issue of *AC* each month?
○ 53. ________ others, in addition to myself

J. How do you read *AC* each month? (please check one):
○ 54. read virtually everything, cover-to-cover
○ 55. scan through pages and read items of interest only
○ 56. check table of contents and maybe read 1-2 articles
○ 57. read my favorite column(s) only
○ 58. read very little of it

K. Have you ever purchased a copy of *AC's GUIDE*?
○ 59. yes—but only once. ○ 61. no—but plan to soon.
○ 60. yes—two or more times. ○ 62. no—not interested.
○ 63. yes—I subscribe.

L. Have you ever purchased a copy or subscribed to *AC's TECH*?
○ 59. yes—but only once. ○ 61. no—but plan to soon.
○ 60. yes—two or more times. ○ 62. no—not interested.
○ 63. no—use my dealer's copy.

101	102	103	104	105	221	222	223	224	225
106	107	108	109	110	226	227	228	229	230
111	112	113	114	115	231	232	233	234	235
116	117	118	119	120	236	237	238	239	240
121	122	123	124	125	241	242	243	244	245
126	127	128	129	130	246	247	248	249	250
131	132	133	134	135	251	252	253	254	255
136	137	138	139	140	256	257	258	259	260
141	142	143	144	145	261	262	263	264	265
146	147	148	149	150	266	267	268	269	270
151	152	153	154	155	271	272	273	274	275
156	157	158	159	160	276	277	278	279	280
161	162	163	164	165	281	282	283	284	285
166	167	168	169	170	286	287	288	289	290
171	172	173	174	175	291	292	293	294	295
176	177	178	179	180	296	297	298	299	300
181	182	183	184	185	301	302	303	304	305
186	187	188	189	190	306	307	308	309	310
191	192	193	194	195	311	312	313	314	315
196	197	198	199	200	316	317	318	319	320
201	202	203	204	205	321	322	323	324	325
206	207	208	209	210	326	327	328	329	330
211	212	213	214	215	331	332	333	334	335
216	217	218	219	220	336	337	338	339	340

101

Amazing Computing For The Commodore AMIGA FREE INFORMATION!

AC March 1994 valid until 4/30/94
see page 80 for reference numbers

Name ____________________
Street ____________________
City ____________ ST. _____ ZiP ________
Country ____________________

A. Which of the following do you now own?
(please check all that apply)
○ 1. Amiga 500 ○ 4. Amiga 1200
○ 2. Amiga 600 ○ 5. Amiga 2000
○ 3. Amiga 1000 ○ 6. Amiga 3000
○ 7. Amiga 4000

B. If none of the above, which do you plan to buy soon?
○ 7. Amiga 4000 ○ 10. Amiga 1200
○ 8. Amiga 3000 ○ 11. Amiga 600
○ 9. Amiga 2000 ○ 12. Amiga 500

C. Which Amiga hardware product do you plan to buy next?
○ 11. memory expansion ○ 15. modem
○ 12. hard drive ○ 16. music tool
○ 13. IBM emulators ○ 17. video product
○ 14. printer ○ 18. accelerator
○ 19. other (please specify): ____________

D. Which Amiga software product do you plan to buy next?
○ 20. 'C' language ○ 27. spreadsheet
○ 21. Forth language ○ 28. database
○ 22. Modula-2 language ○ 29. financial
○ 23. Assembly language ○ 30. video
○ 24. BASIC language ○ 31. graphics
○ 25. entertainment ○ 32. music
○ 26. telecommunications ○ 33. other (please specify): ____________

E. How much money are you likely to spend on all Amiga product purchases this year?
○ 34. \$0—\$250 ○ 38. \$1501—\$2000
○ 35. \$251—\$500 ○ 39. \$2001—\$4000
○ 36. \$501—\$1000 ○ 40. over \$4000
○ 37. \$1001—\$1500

F. Where do you buy Amiga products?
○ 41. local Amiga Dealer ○ 43. manufacturer
○ 42. discount department store ○ 44. mail order

G. How many times have you purchased an Amiga product after seeing it in *AC*?
○ 45. frequently ○ 47. once
○ 46. occasionally ○ 48. never

H. How did you obtain your copy of *AC*?
○ 49. subscribe (how long? ______ years)
○ 50. buy at local Amiga dealer
○ 51. buy at bookstore/newsstand/software store
○ 52. other: ____________

I. How many others *not including yourself* usually see or read your issue of *AC* each month?
○ 53. ________ others, in addition to myself

J. How do you read *AC* each month? (please check one):
○ 54. read virtually everything, cover-to-cover
○ 55. scan through pages and read items of interest only
○ 56. check table of contents and maybe read 1-2 articles
○ 57. read my favorite column(s) only
○ 58. read very little of it

K. Have you ever purchased a copy of *AC's GUIDE*?
○ 59. yes—but only once. ○ 61. no—but plan to soon.
○ 60. yes—two or more times. ○ 62. no—not interested.
○ 63. yes—I subscribe.

L. Have you ever purchased a copy or subscribed to *AC's TECH*?
○ 59. yes—but only once. ○ 61. no—but plan to soon.
○ 60. yes—two or more times. ○ 62. no—not interested.
○ 63. no—use my dealer's copy.

101	102	103	104	105	221	222	223	224	225
106	107	108	109	110	226	227	228	229	230
111	112	113	114	115	231	232	233	234	235
116	117	118	119	120	236	237	238	239	240
121	122	123	124	125	241	242	243	244	245
126	127	128	129	130	246	247	248	249	250
131	132	133	134	135	251	252	253	254	255
136	137	138	139	140	256	257	258	259	260
141	142	143	144	145	261	262	263	264	265
146	147	148	149	150	266	267	268	269	270
151	152	153	154	155	271	272	273	274	275
156	157	158	159	160	276	277	278	279	280
161	162	163	164	165	281	282	283	284	285
166	167	168	169	170	286	287	288	289	290
171	172	173	174	175	291	292	293	294	295
176	177	178	179	180	296	297	298	299	300
181	182	183	184	185	301	302	303	304	305
186	187	188	189	190	306	307	308	309	310
191	192	193	194	195	311	312	313	314	315
196	197	198	199	200	316	317	318	319	320
201	202	203	204	205	321	322	323	324	325
206	207	208	209	210	326	327	328	329	330
211	212	213	214	215	331	332	333	334	335
216	217	218	219	220	336	337	338	339	340

102

SAVE on AC!

YES!

The "Amazing" AC publications give me ***3 GREAT*** *options to save! Please begin my subscription(s) immediately!*

Name ____________________
Address ____________________
City ____________ State ______ ZIP ________
Charge my ☐ Visa ☐ MC #____________________
Expiration Date ________ Signature ____________________

DISCOVER
MasterCard®
VISA

Please circle to indicate this is a **New Subscription** or a **Renewal**

1 year of **AC**	**12 big issues of Amazing Computing!**	US \$27.00 ☐ Canada/Mexico \$34.00 ☐ Foreign Surface \$44.00 ☐
1-year SuperSub	**AC + AC's GUIDE = 14 issues total!**	US \$37.00 ☐ Canada/Mexico \$54.00 ☐ Foreign Surface \$64.00 ☐
1 year of **AC's TECH**	**4 big issues! The #1 Tech Resource**	US \$43.95 ☐ Canada/Mexico \$47.95 ☐ Foreign Surface \$51.95 ☐

Please call for all other Canada/Mexico/foreign surface & Air Mail rates.
Check or money order payments must be in US funds drawn on a US bank; subject to *applicable* sales tax.

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS MAIL PERMIT NO. 36 FALL RIVER, MA

Postage Will Be Paid By Addressee

Amazing COMPUTING AMIGA

P.O. Box 2140
Fall River, MA 02722-9969

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL
FIRST CLASS MAIL PERMIT NO. 36 FALL RIVER, MA

Postage Will Be Paid By Addressee

Amazing COMPUTING AMIGA

P.O. Box 2140
Fall River, MA 02722-9969

Please return to:

Amazing COMPUTING AMIGA
Your Original AMIGA Monthly Resource

P.O. Box 2140
Fall River, MA 02722-2140

Please place this order form in an envelope
with your check or money order.

Please return to:

Amazing Computing
For The Commodore AMIGA
Your Original AMIGA Monthly Resource

P.O. Box 2140
Fall River, MA 02722-2140

Please place this order form in an envelope with your check or money order.

---

*YES! The "Amazing" AC publications give me **3 GREAT** reasons to save!*

Please begin the subscription(s) indicated below immediately!

MasterCard
VISA
DISCOVER

Name ______________________________

Address ______________________________

City ____________________ State ______ ZIP __________

Charge my ☐ Visa ☐ MC # ______________________________

Expiration Date __________ Signature ____________________

Please circle to indicate this is a **New Subscription** or a **Renewal**

1 year of **AC**	**12 big issues of Amazing Computing! Save over 49% off the cover price!**	**US $27.00** ☐ **Canada/Mexico $34.00** ☐ **Foreign Surface $44.00** ☐
1-year SuperSub	**AC + AC's GUIDE – 14 issues total! Save more than $31 off the cover prices!**	**US $37.00** ☐ **Canada/Mexico $54.00** ☐ **Foreign Surface $64.00** ☐
1 year of **AC's TECH**	**4 big issues of the Amiga's Original Disk-based technical magazine!**	**US $43.95** ☐ **Canada/Mexico $47.95** ☐ **Foreign Surface $51.95** ☐

Please call for all other Canada/Mexico/foreign surface & Air Mail rates.
Check or money order payments must be in US funds drawn on a US bank; subject to *applicable* sales tax.

Please return to:

Amazing COMPUTING For The Commodore AMIGA
Your Original AMIGA Monthly Resource
P.O. Box 2140
Fall River, MA 02722-2140

Please place this order form in an envelope with your check or money order.

YES! *The "Amazing" AC publications give me **3 GREAT** reasons to save!*
Please begin the subscription(s) indicated below immediately!

MasterCard
VISA
DISCOVER

Name ____________________

Address ____________________

City ____________________ State ______ ZIP ____________

Charge my ☐ Visa ☐ MC # ____________________

Expiration Date ________ Signature ____________________

Please circle to indicate this is a **New Subscription** or a **Renewal**

1 year of **AC**	**12 big issues of Amazing Computing! Save over 49% off the cover price!**	**US $27.00** ☐ **Canada/Mexico $34.00** ☐ **Foreign Surface $44.00** ☐
1-year SuperSub	**AC + AC's GUIDE – 14 issues total! Save more than $31 off the cover prices!**	**US $37.00** ☐ **Canada/Mexico $54.00** ☐ **Foreign Surface $64.00** ☐
1 year of **AC's TECH**	**4 big issues of the Amiga's Original Disk-based technical magazine!**	**US $43.95** ☐ **Canada/Mexico $47.95** ☐ **Foreign Surface $51.95** ☐

Please call for all other Canada/Mexico/foreign surface & Air Mail rates.
Check or money order payments must be in US funds drawn on a US bank; subject to *applicable* sales tax.

NEW!

SuperGen SX

S-VIDEO AND COMPOSITE GENLOCK AND OVERLAY SYSTEM

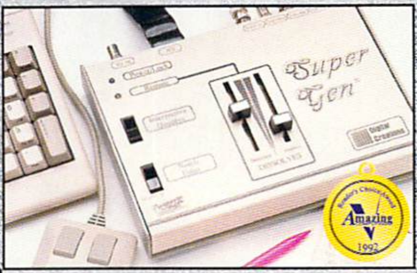
- Only broadcast quality S-Video genlock for less than $1000
- AGA compatible. Compatible with all Amiga models
- Two independent dissolve controls
- Software controllable

NEW PRICE! **SuperGen SX $749.00**

The Original

SuperGen

BROADCAST QUALITY COMPOSITE GENLOCK AND OVERLAY SYSTEM



NEW PRICE! **SuperGen $549.00**

SuperGen2000s

BROADCAST QUALITY FOR A2000 WITH BUILT-IN PROC-AMP

NEW PRICE! **SuperGen 2000s $1195.00**

THE FUTURE IS HERE!

Create spectacular true color animations on your Amiga.

Paint, digitize and display beautiful full color composite video images on any Amiga.

Capture an image in 10 seconds from any color video camera or stable video source.

Full-featured paint, digitize and conversion software included.

Compatible with AGA 1200 and 4000 Amigas in NTSC/PAL modes. Two to four times the speed of AGA animations (DCTV vs. HAM8) with greater color and resolution.

Compatible with all popular 3D, rendering, and graphics packages including:

AD-Pro, Aladdin 4D, AmigaVision, Brilliance, Calligari, Cinemorph, Draw4D, ImageMaster, Imagine, LightWave, MorphPlus, Real 3D, Scala, Scenery Animator, Sculpt, VistaPro, and many others...

NEW PRICE! **DCTV (NTSC or PAL) $299.00**

RGB CONVERTER

Allows the use of DCTV with standard RGB monitors (1084) in standard NTSC or PAL modes. Also permits the use of external genlocks like our SuperGen.

NEW PRICE! **RGB Converter $199.00**

HOT NEW PRICES

The Kitchen Sync™

TWO COMPLETE TIME BASE CORRECTORS ON ONE CARD!

The Kitchen Sync provides two channels of time base correction - the perfect low cost TBC solution for the Video Toaster™.

With a Video Toaster, the Kitchen Sync provides a complete A/B roll editing system.

Two complete infinite window time base correctors on one IBM AT/Amiga compatible card.

- Absolute 100% broadcast quality
- Composite or Y/C video in
- Includes easy to use external control panel
- No waveform monitor needed
- Variable speed strobe
- Freeze Frame, two rock-solid Freeze Fields
- Low power consumption
- Lowest TBC price per channel
- Works with consumer grade VCRs

NEW PRICE! **Kitchen Sync $1295.00**

Genlock Option

Required to synchronize the Kitchen Sync to an external video source.

NEW PRICE! **Genlock Option $150.00**

S-VHS Option

Required to enable S-VHS/Hi-8 (Y/C) video outputs.

NEW PRICE! **S-VHS Option $99.00**

VISA **FREE SHIPPING** MasterCard
on all VISA & MC orders in the US.
COD - Cash only - add $10.00.
Call by 2:00pm PST/5:00pm EST for same day shipping.

CALL DIGITAL DIRECT
1-800-645-1164
Orders only
9:00am to 5:00pm PST M-F
For technical information call 916-344-4825

DIGITAL CREATIONS Worldwide Distributors and Dealers Wanted. Inquiries invited.

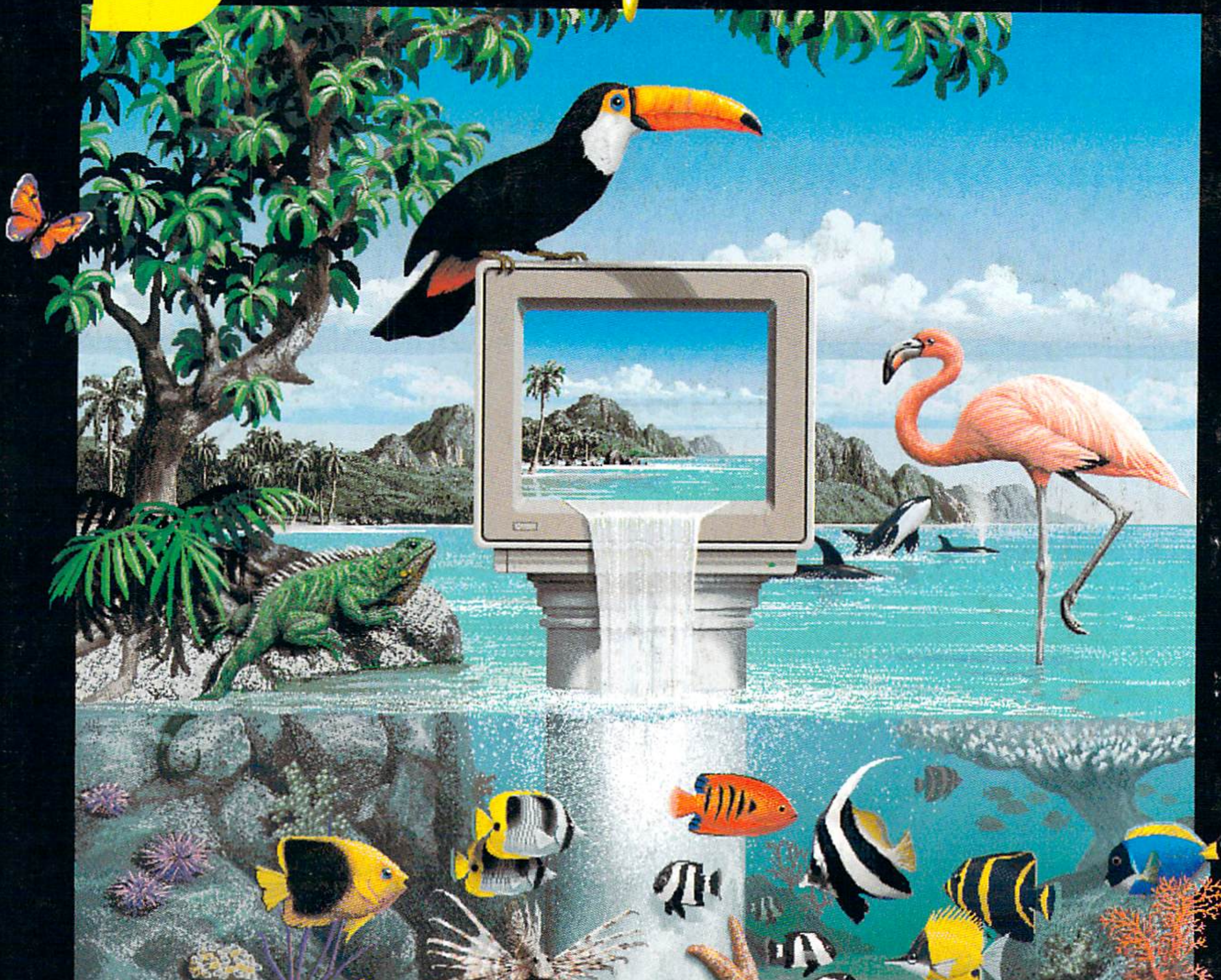
P.O. Box 97, Folsom CA 95763-0097 • Phone 916•344•4825 • FAX 916•635•0475

SuperGen SX, SuperGen, SuperGen2000s, DCTV, DCTV RGB Converter, and Kitchen Sync are trademarks of Digital Creations, Inc.
Video Toaster is a trademark of Newtek, Inc. IBM and IBM AT are registered trademarks of IBM, Inc. Amiga is a registered trademark of Commodore-Amiga, Inc.

Circle 109 on Reader Service card.

IT'S SHIPPING!

BRILLIANCE



Professional Paint & Animation

DIGITAL
CREATIONS

Circle 108 on Reader Service card.